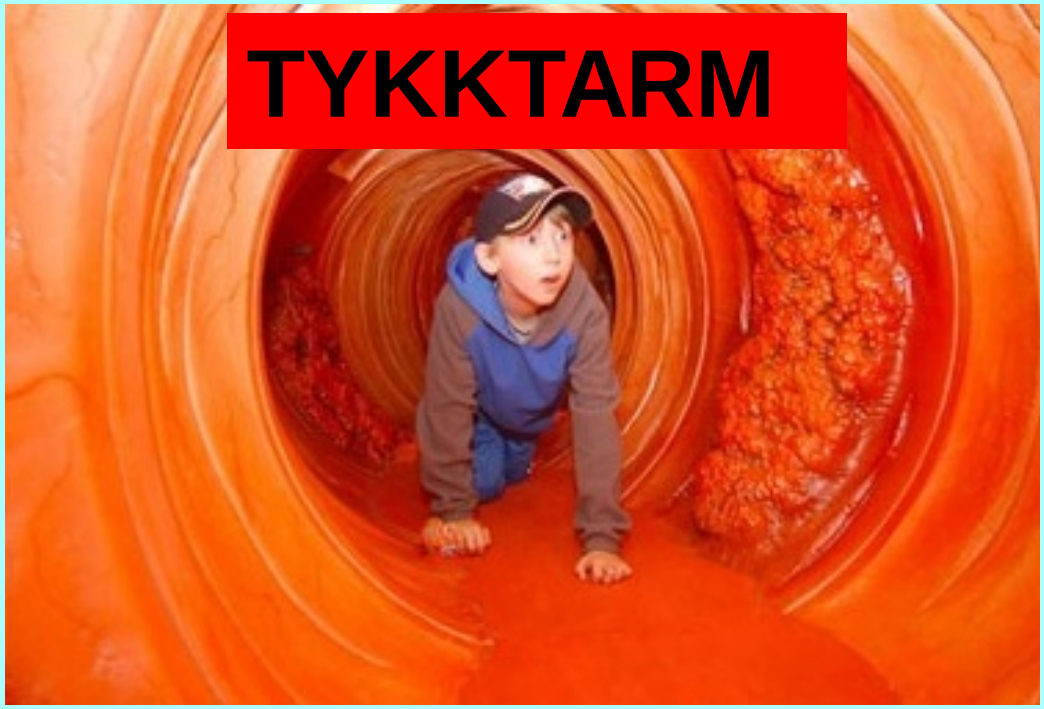


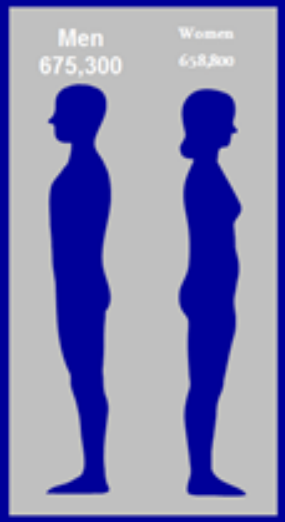
Polypp: frembukning fra overflaten

2/3 er adenomatøse- **premaligne**

Ofte asymptomatiske / mulig blødning

2003 Estimated US Cancer Cases*

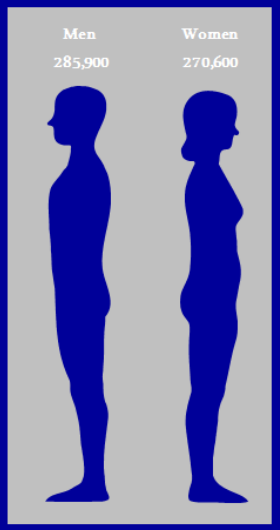
Prostate	222,849	210,816	Breast
Lung/bronchus	94,542	79,056	Lung/bronchus
Colon/rectum	**74,283**	**72,468**	**Colon & rectum**
Urinary bladder	40,518	39,528	Uterine corpus
Melanoma of skin	27,012	26,352	Ovary
Non-Hodgkin lymphoma	27,012	26,352	Non-Hodgkin lymphoma
Kidney	20,259	19,764	Melanoma of skin
Oral cavity	20,259	19,764	Thyroid
Leukemia	20,259	13,176	Pancreas
Pancreas	13,506	13,176	Urinary bladder
All other sites	114,801	62,238	All other sites



ONS=Other nervous system.
*Excludes basal and squamous cell skin cancers and in situ carcinomas except urinary bladder.
Source: American Cancer Society, 2003.

2003 Estimated US Cancer Deaths*

Lung/bronchus	88,629	67,650	Lung/bronchus
Prostate	28,590	40,590	Breast
Colon & rectum	**28,590**	**29,766**	**Colon & rectum**
Pancreas	14,295	16,236	Pancreas
Non-Hodgkin lymphoma	11,436	13,530	Ovary
Leukemia	11,436	10,824	Non-Hodgkin lymphoma
Esophagus	11,436	10,824	Leukemia
Liver/intrahepatic bile duct	8,577	8,118	Uterine corpus
Urinary bladder	8,577	5,412	Brain/ONS
Kidney	8,577	5,412	Multiple myeloma
All other sites	62,898	62,238	All other sites



ONS=Other nervous system.
*Excludes basal and squamous cell skin cancers and in situ carcinomas except urinary bladder.
Source: American Cancer Society, 2003.

TYKKTARM CANCER

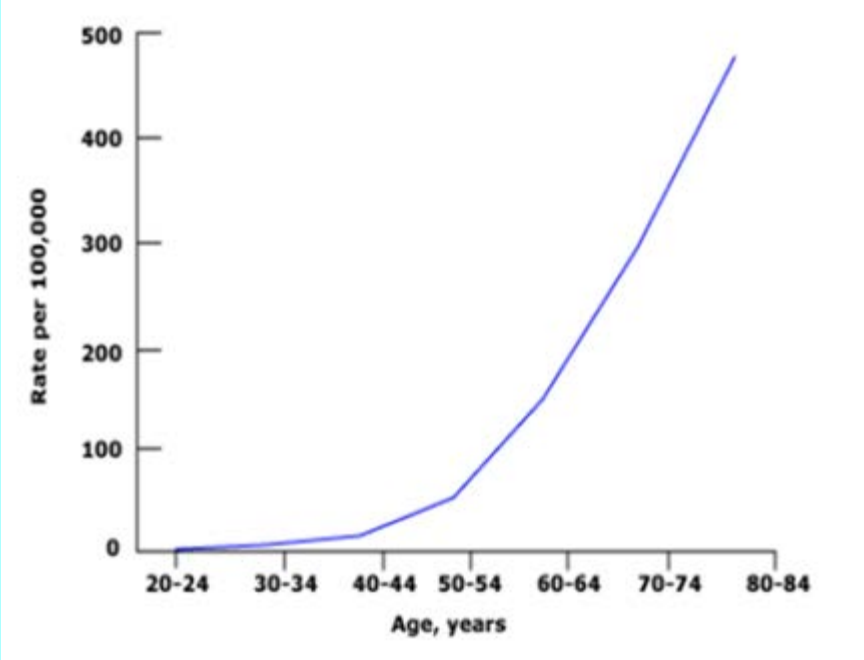


Figure 120–1 Age-standardized incidence of colon cancer per 100,000 population worldwide for men (*A*) and women (*B*). (*A* and *B*, Data from Parkin DM, Whelen SL, Ferlay J, et al: Cancer Incidence in Five Continents. [IARC Sci. Publ. No. 143]. Series. Lyon, International Agency for Research on Cancer, 1997.)

Screening Techniques for Colorectal Cancer

- **Fecal occult blood test (FOBT) every year, or**
- **Flexible sigmoidoscopy every 5 years,or**
- **A fecal occult blood test every year plus flexible sigmoidoscopy every 5 years *(recommended by the American Cancer Society),* or**
- **Double-contrast barium enema every 5 to 10 years, or**
- **Colonoscopy every 10 years *(recommended by the American College of Gastroenterology).***

Screening For Colon Cancer *SAVES* LIVES!!!

Test	Mortality Reduction
Fecal occult blood testing	33%
Flexible sigmoidoscopy (in portion of colon examined)	66%
FOBT + flexible sigmoidoscopy (compared to sigmoidoscopy alone)	43%
Colonoscopy (after initial screening and polypectomy)	~76-90%

Table 46.4. GUIDELINES FOR COLORECTAL CANCER SCREENING*

Asymptomatic men or women beginning at age 50 years should undergo screening with one or more of the following:

- Annual fecal occult blood test,
- Flexible sigmoidoscopy every 5 years, or
- Double-contrast barium enema every 5 to 10 years, or
- Colonoscopy every 10 years

Diagnostic evaluation with colonoscopy or double-contrast barium enema (preferably accompanied by flexible sigmoidoscopy) should be performed in any patients with either positive findings on screening with fecal occult blood testing or symptoms suggestive of colorectal cancer or polyps.

*Endorsed by the American Cancer Society, American College of Gastroenterology, American Society of Colon and Rectal Surgeons, American Society for Gastrointestinal Endoscopy, Oncology Nursing Society, and Society of American Gastrointestinal Endoscopic Surgeons.

Table 46.1. CLINICAL RISK FACTORS FOR COLORECTAL CANCER

GENETIC

Polyposis syndromes

Familial polyposis coli
Gardner's syndrome
Turcot syndrome (CNS tumors)
Oldfield's syndrome (sebaceous cysts)
Peutz-Jeghers syndrome (hamartomas)

Nonpolyposis syndromes

Lynch syndrome I
Lynch syndrome II (associated extracolonic cancers)

Preexisting disease

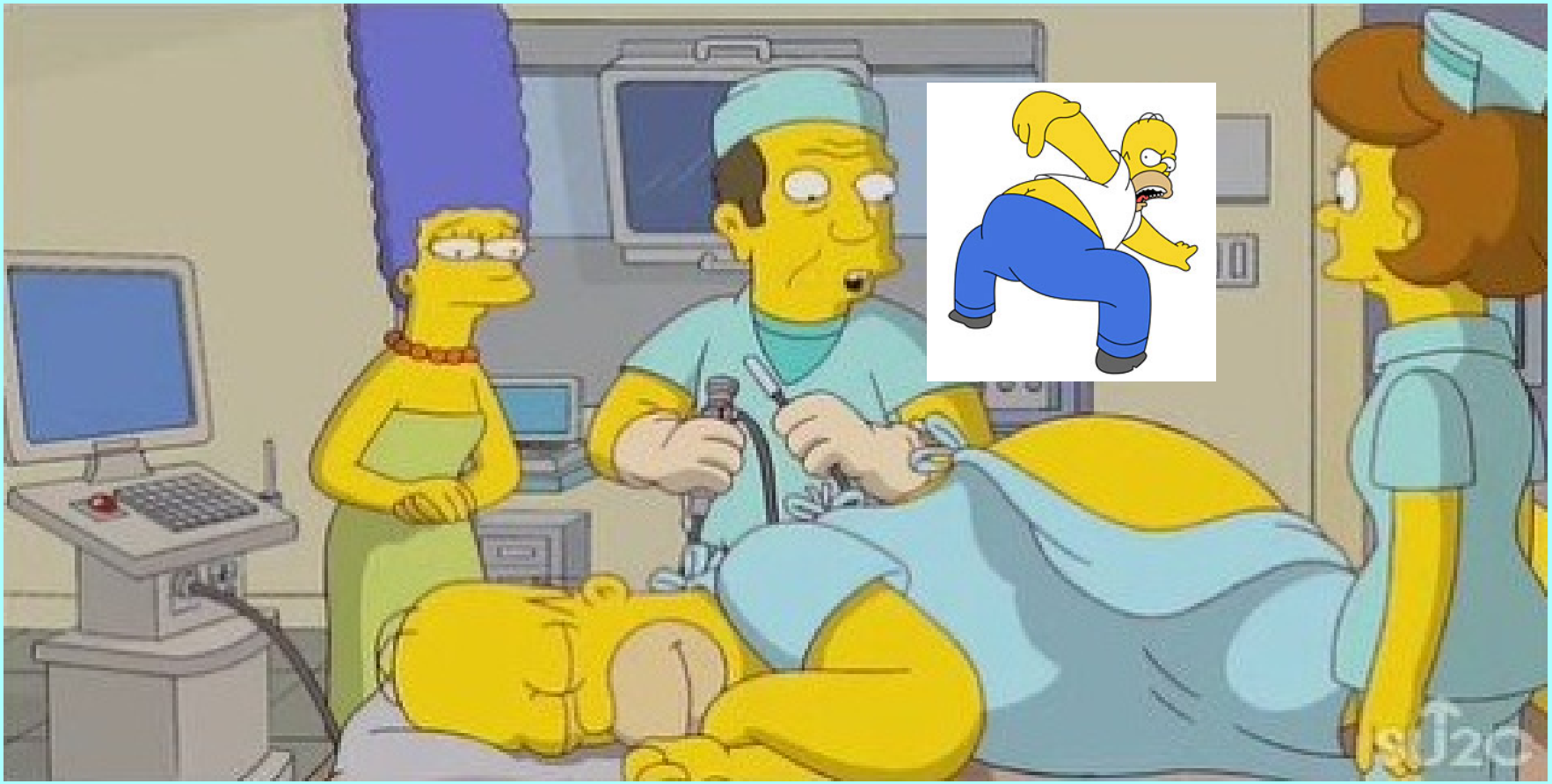
Ulcerative colitis
Crohn's disease
Prior colorectal cancer
Neoplastic polyps
Pelvic irradiation
Breast or genital tract cancer

GENERAL

Age >40 y
Family history of colorectal cancer


I need courage.
I need a heart.
I need a brain.
I'm over 50. I need a colorectal exam.

ØNSKE OM UNDERSØKELSE !



MÅ UTFØRES RIKTIG !

MÅ HA KOMPETANSE !

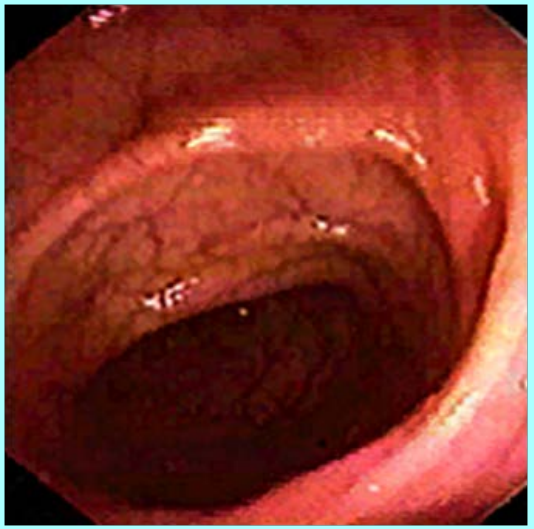
Colonoskopi – oppdager og
fjerner polypper !

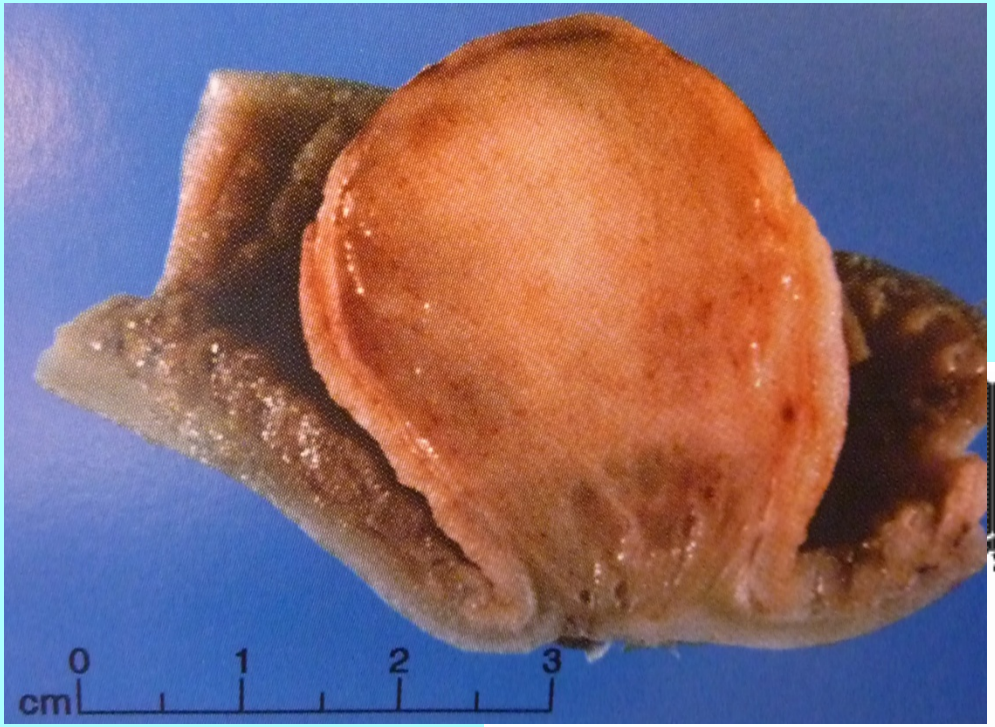
MEN MISTER:

”To X endoskopi, samme dag:

mister ca. 25% av adenomer < 5mm

5% >1 cm.”

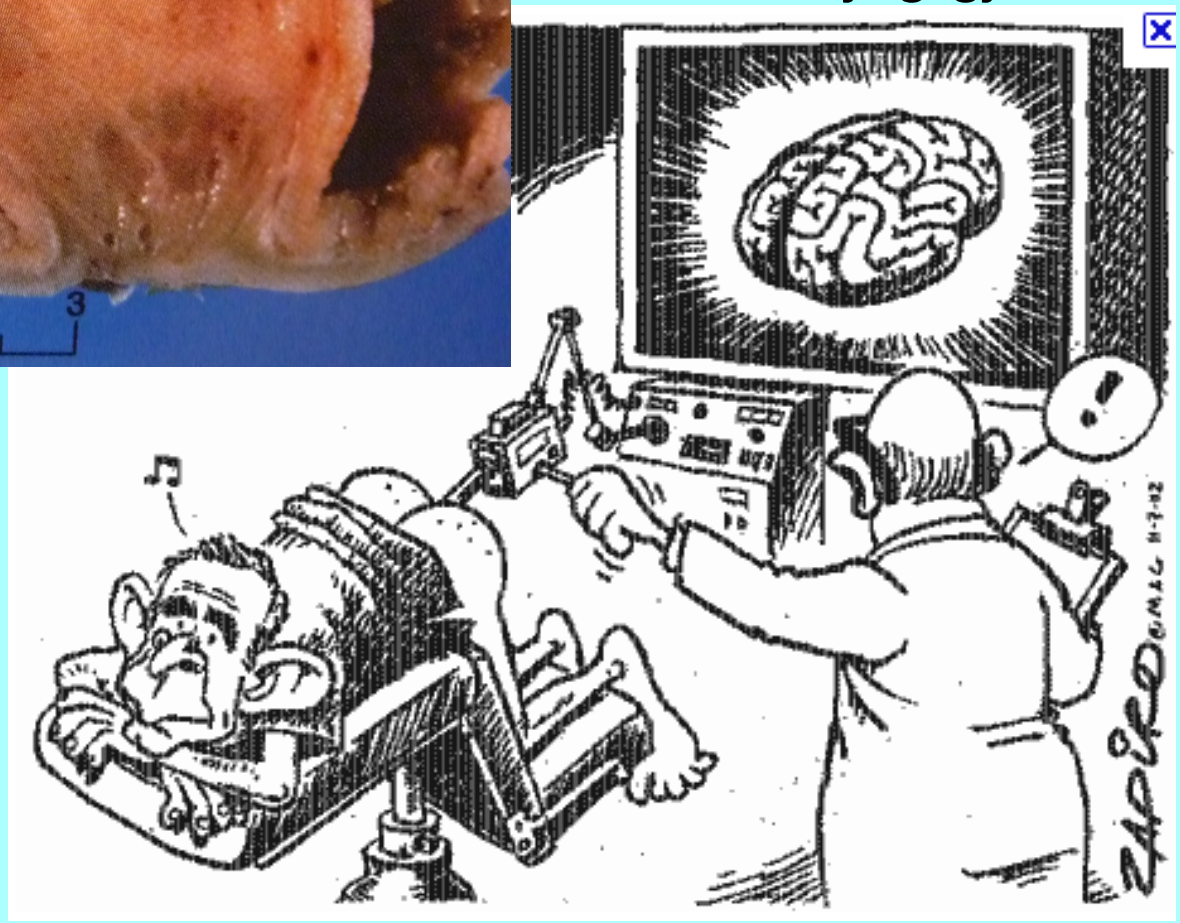




? !

Hva er dette?

Hva skal jeg gjøre?



- **Klassifisering av polypper:**

Neoplastisk

- Adenomer
- Tubulær
- Tubulovilløs
- Villøs
- Serrated adenom
- (Flat adenoma)
-

Ikke- neoplastisk

- Hyperplastisk
  Inflammatorisk (pseudopolypp) Post- inflammatorisk polypp Fibroblastic polyp
- Mucosal prolaps syndrome Cap- polyp Diverticular polyp of colon
-
- Hamartom Juvenil polypp (isolerte polypper)
- Peutz- Jeghers polypp (solitær)

Submukosal

- Neoplastisk
- Lymfoid Leiomyomatøs Lipomatøs Neurofibrom Ganglioneurom
- Granulærcelle tumor (-myoblastom)
- Ikke- neoplastisk Heterotopisk gastric mucosa
- Hamartom Vaskulært Cowden`s syndrome (multiple hamartom)
- `

Polyposis syndrome <1%

Neoplastic polyps (adenomas)

- Sporadic polyps
- Multiple adenomas (FAP, AFAP, MYH)

Non-neoplastic polyps

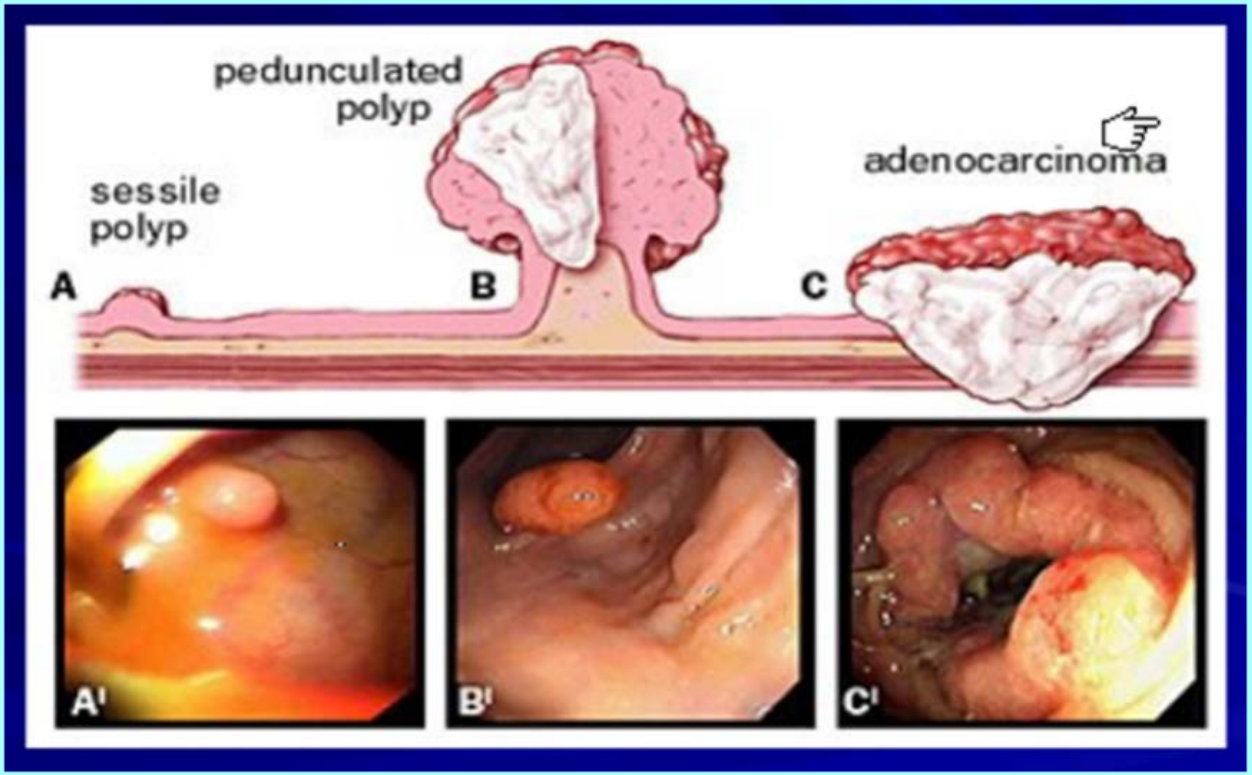
Gastrointestinal polypose syndrome

- Heriditær polypose syndrome
  - Adenomer
    - Familiær adenomatøs polyposis coli (FAP)
    - Attenuated ----”---- (AFAP)
    - Gardner`s syndrome
    - Turcot`s syndrome
    - MYH adenomatøs polyposis coli
  - Hamartomatøs
    - Peutz- Jegers syndrome
    - Juvenil polyposis syndrome (> 5 polypper)
    - Cowden`s sykdom
    - Bannayan- Riley- Ruvalcaba syndrome
    - Devon familie syndrome
  - Andre
    - Heriditær blandet polypose syndrome
    - Neurofibromatose, Type 1
    - Multiple endokrin neoplasi, Type 2
- Ikke heriditær polypose syndrome
    - Hyperplastisk polypose
    - Cronkhite- Canada syndrome (Hamartomatøs)
    - Lymfomatøs polypose
    - Nodulær lymfoid hyperplasi
    - Pneumatosis cystoides intestinalis
    - Colitis cystica profunda

Polypp:

- 2/3 av polyppene er adenomatøse

- Er dysplastiske: Har malignitetspotensiale
- Colorectal cancer utgår stort sett fra adenom
- Adenom til cancer: 7- 8 år
- 30- 40% av personer over 50 år: >1 adenom



Polyppbase

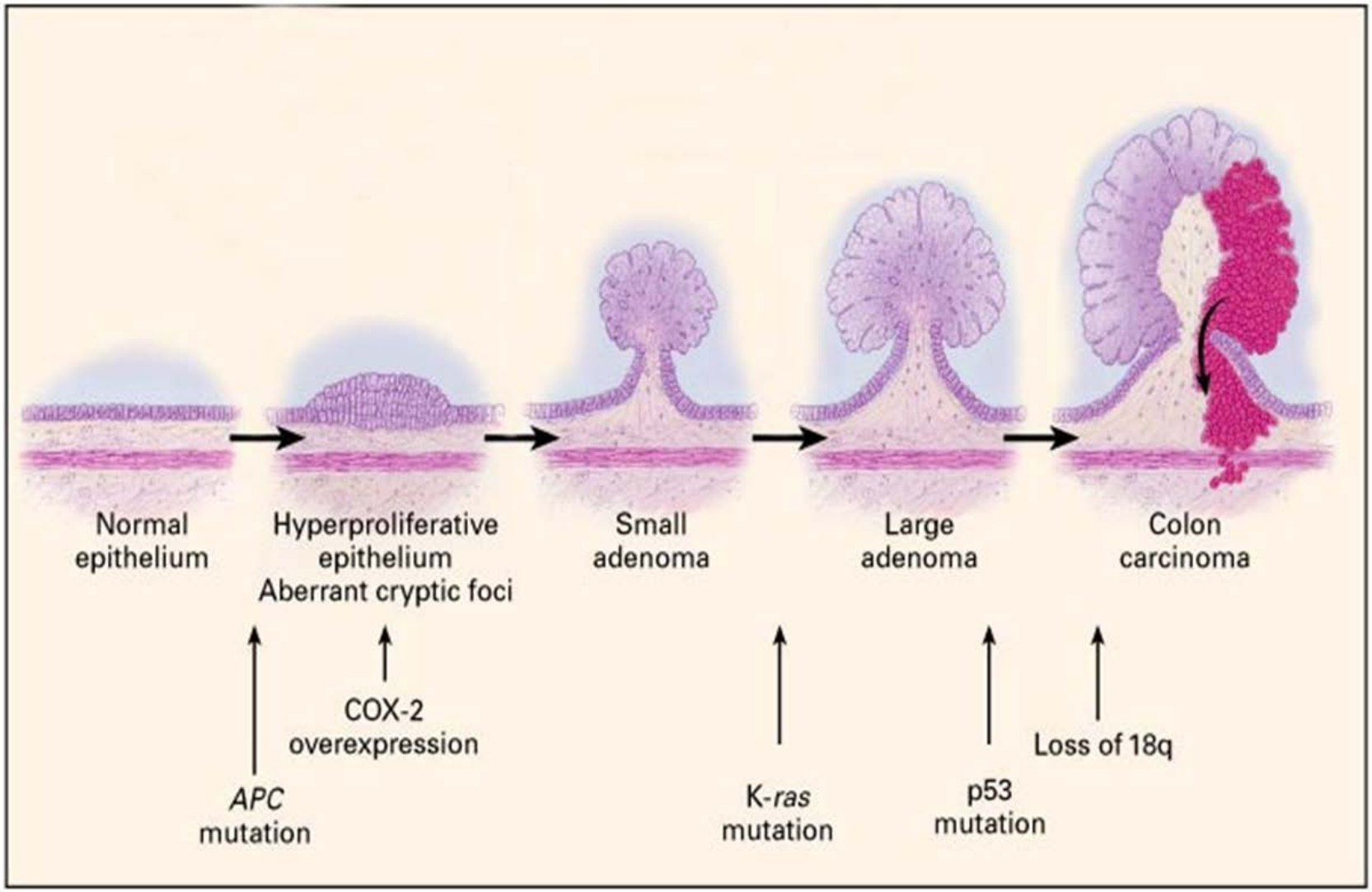
- Sessile- base mot colonvegg
- Pedunkulert- stilk mellom basis og polypp

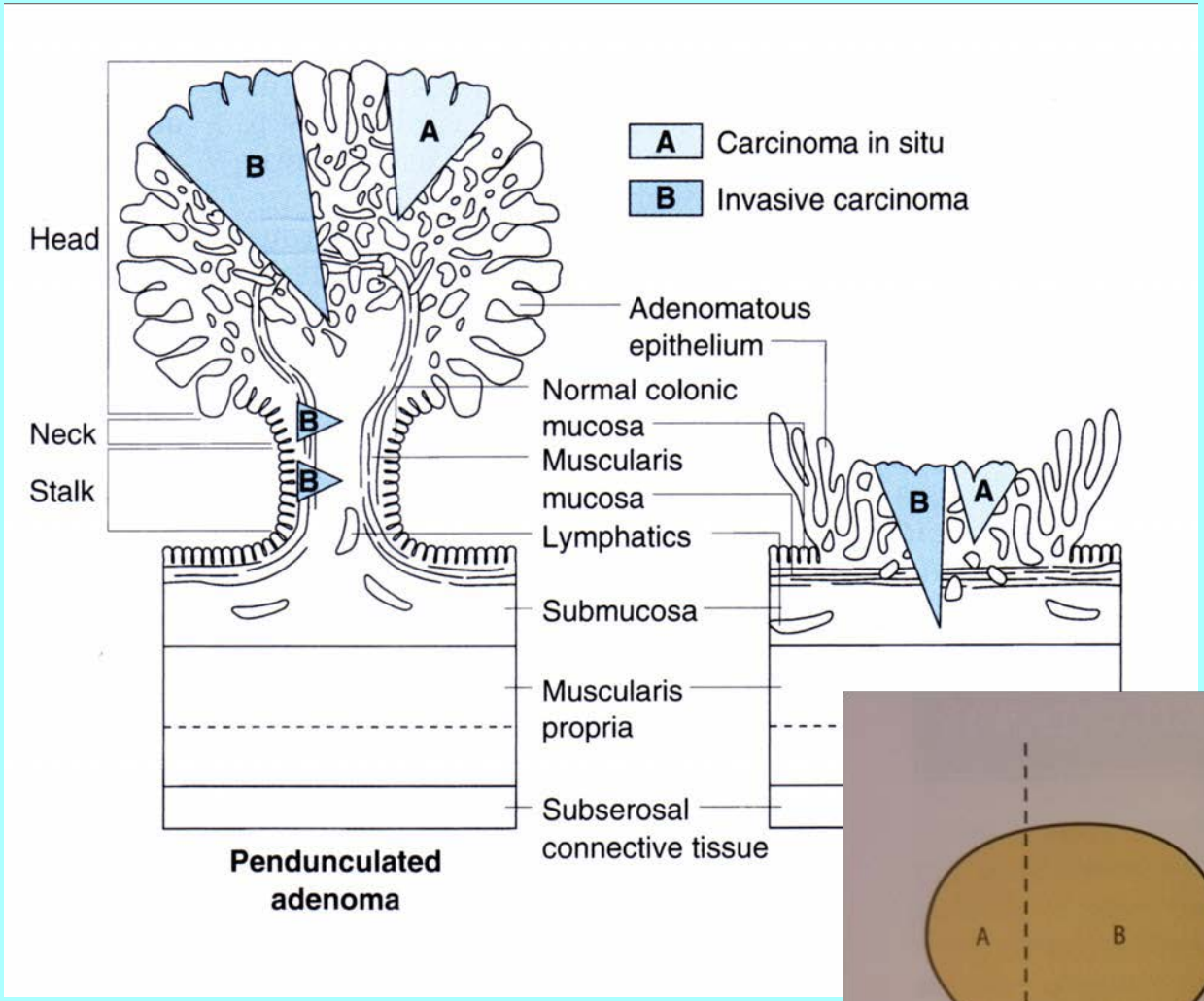
- Frembukende
- (Flat)
- (Nedsunket)

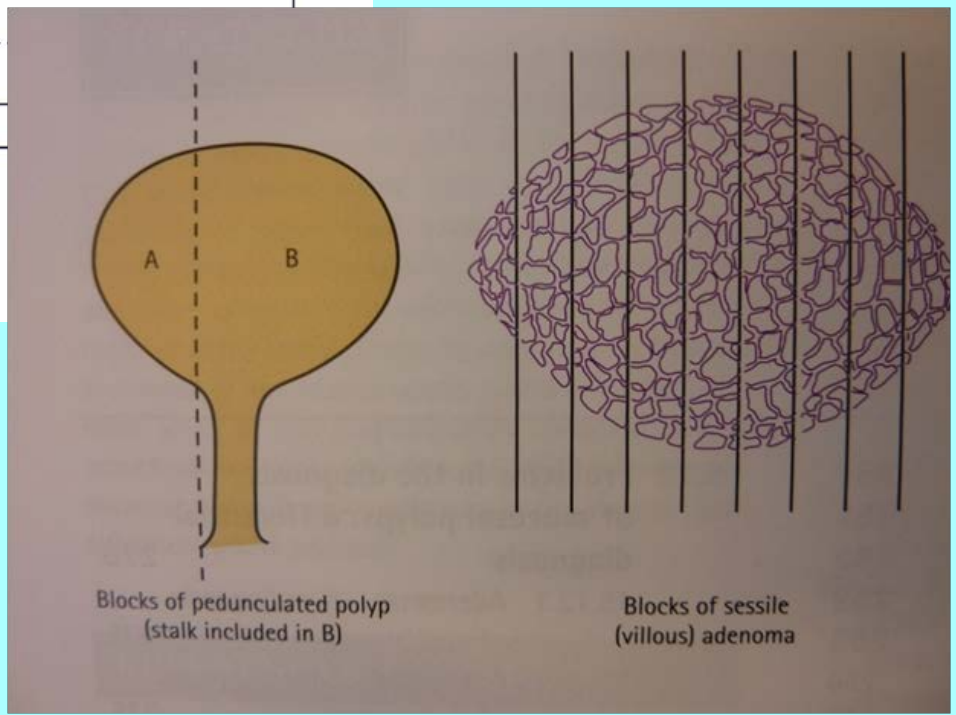
Celleatypi:

- Lavgradig: lett og
  moderat
- Høygradig: grov

- Grov: ((Carcinoma in situ
  = intramucosalt adenokarsinom))


Normal epithelium
Hyperproliferative epithelium
Aberrant cryptic foci
Small adenoma
Large adenoma
Colon carcinoma
APC mutation
COX-2 overexpression
K-ras mutation
p53 mutation
Loss of 18q


A
Carcinoma in situ
B
Invasive carcinoma
Head
Neck
Stalk
Adenomatous epithelium
Normal colonic mucosa
Muscularis mucosa
Lymphatics
Submucosa
Muscularis propria
Subserosal connective tissue
Pendunculated adenoma


A
B
Blocks of pedunculated polyp (stalk included in B)
Blocks of sessile (villous) adenoma

NEOPLASTISK

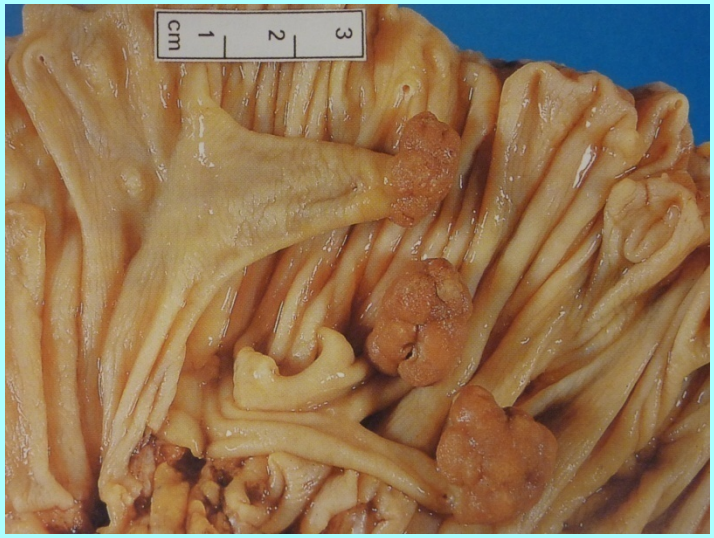
Adenomatøse polypper

Histologisk arkitektur:

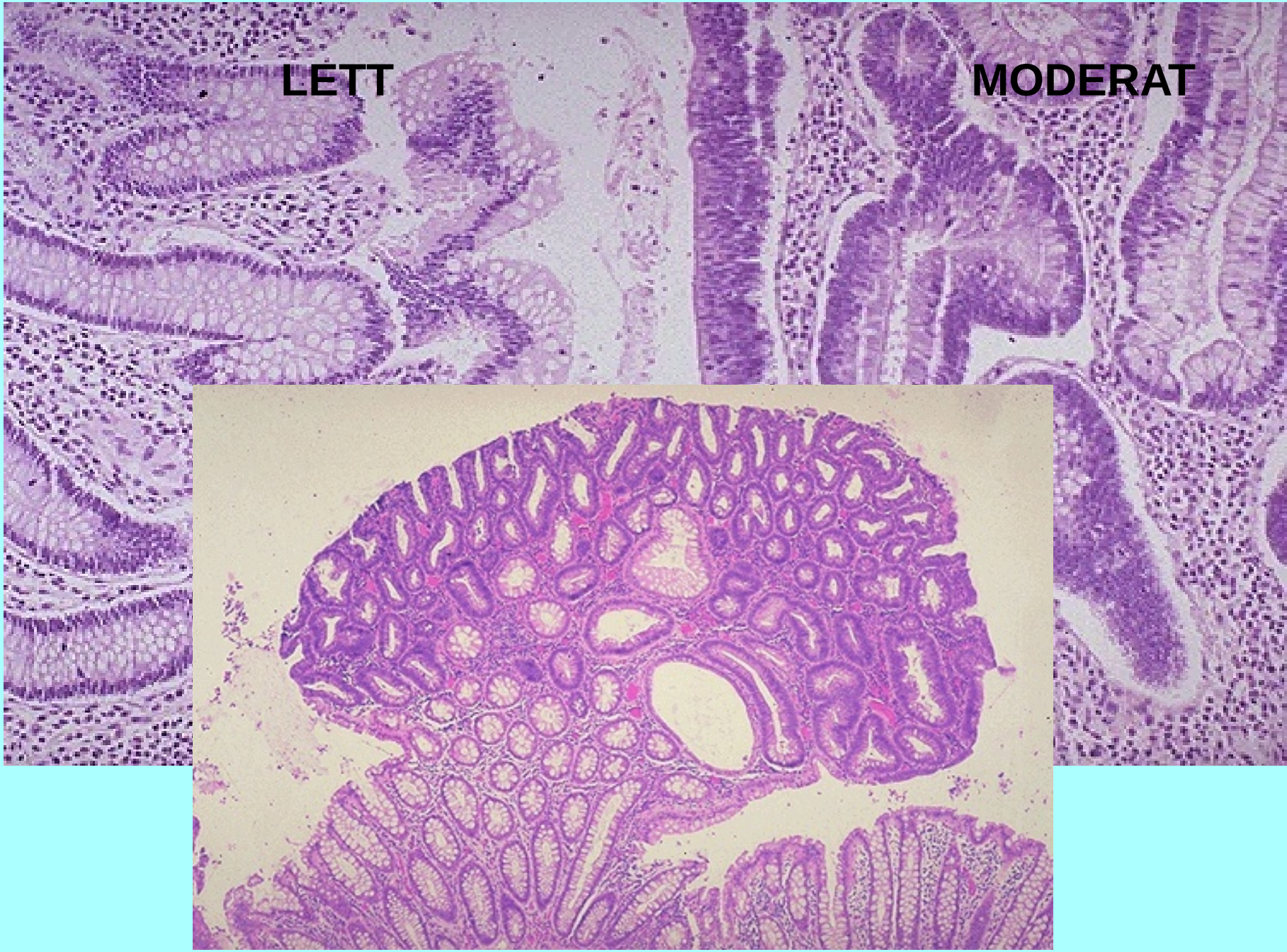
- Tubulært adenom
- Tubulovilløst adenom
- Villøst adenom

- Atypigrad

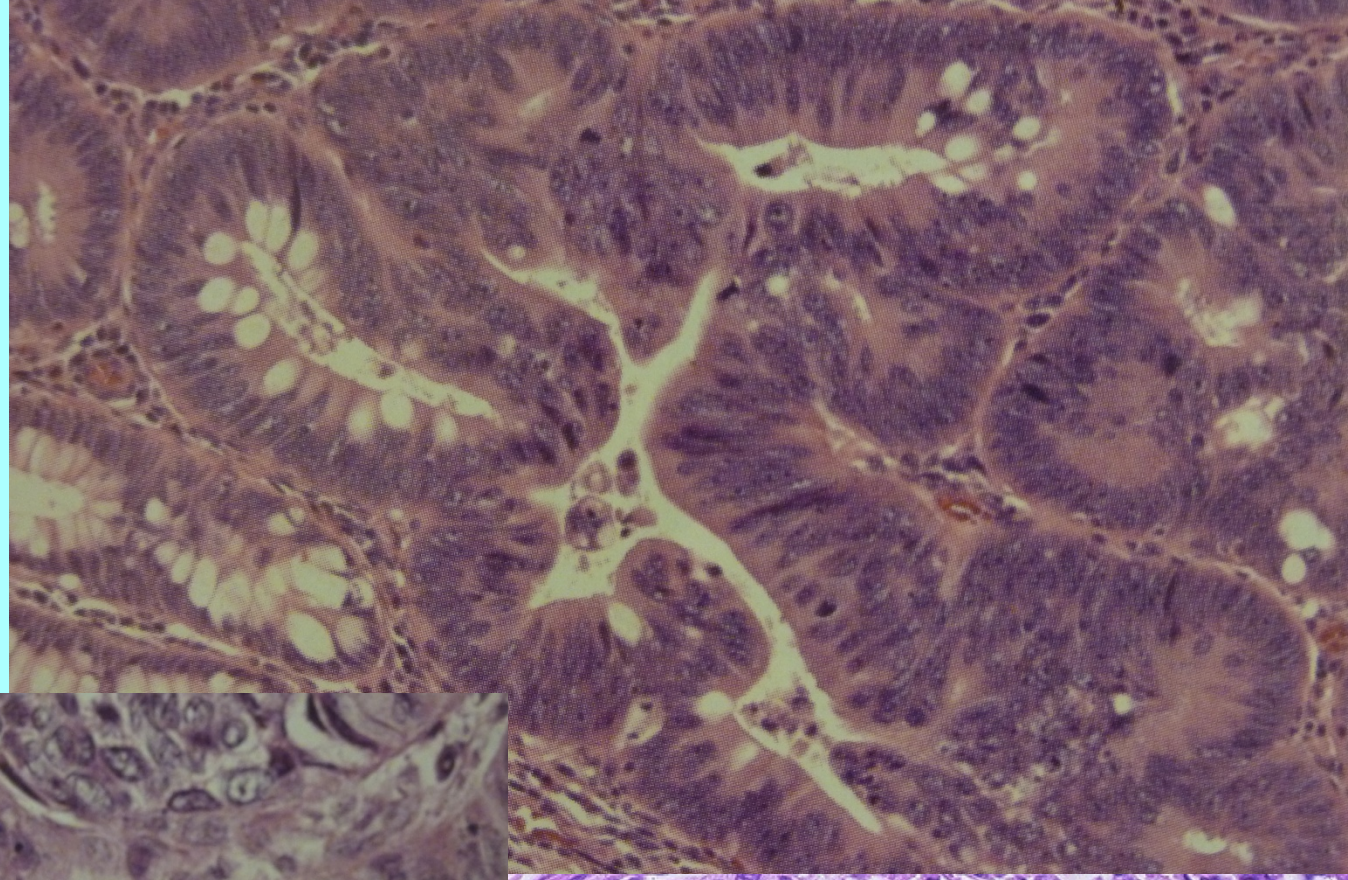
- Tubulært adenom

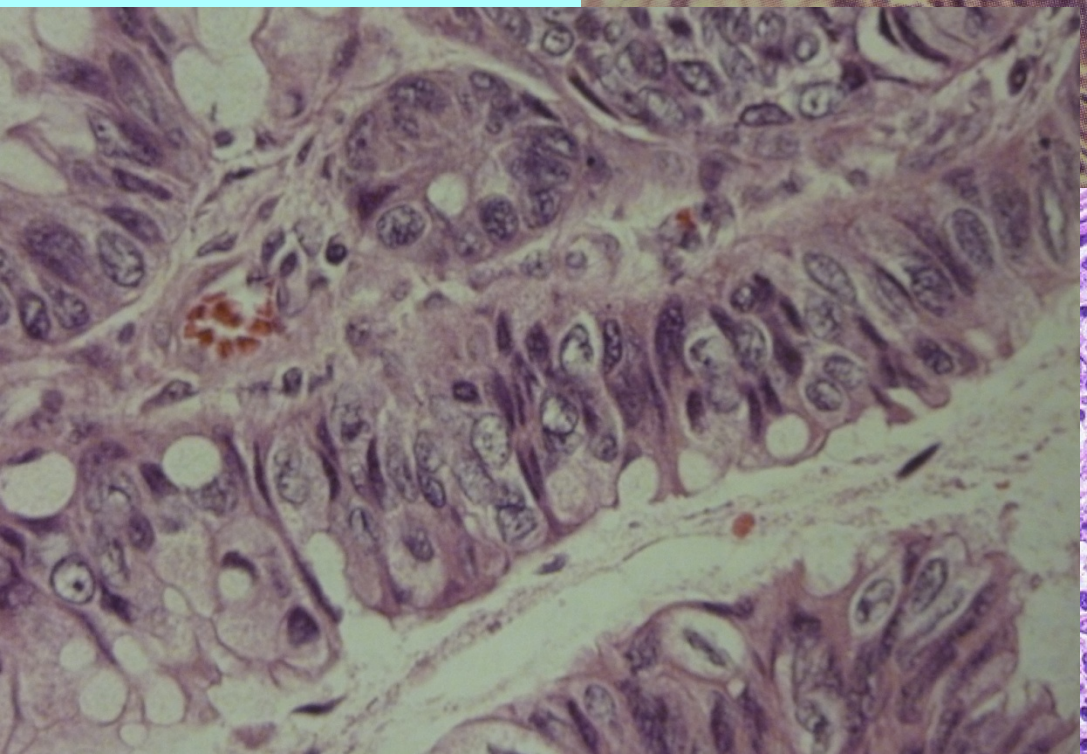


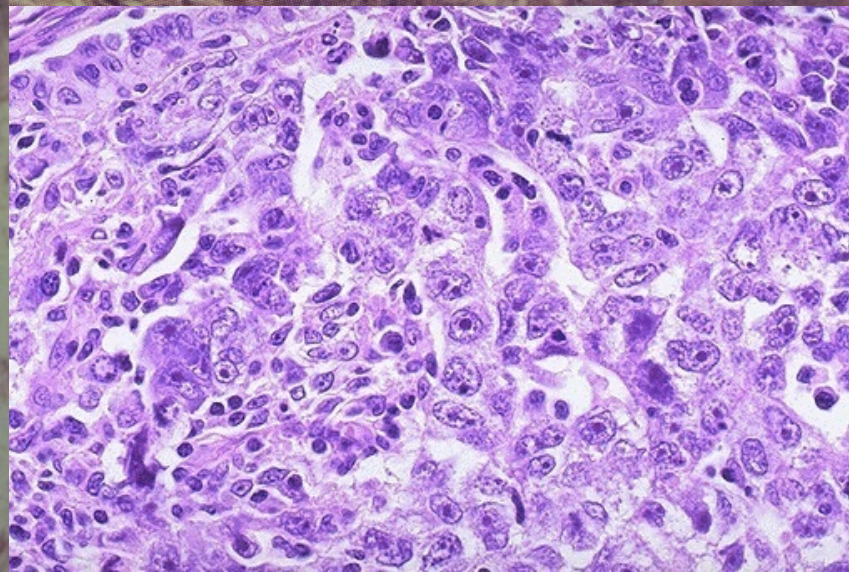
- 80% av adenomene
- Tubulær komponent >80%
- Histologiske trekk og polyppstørrelse viser malignitetspotensiale


LETT
MODERAT

GROV DYSPLASI

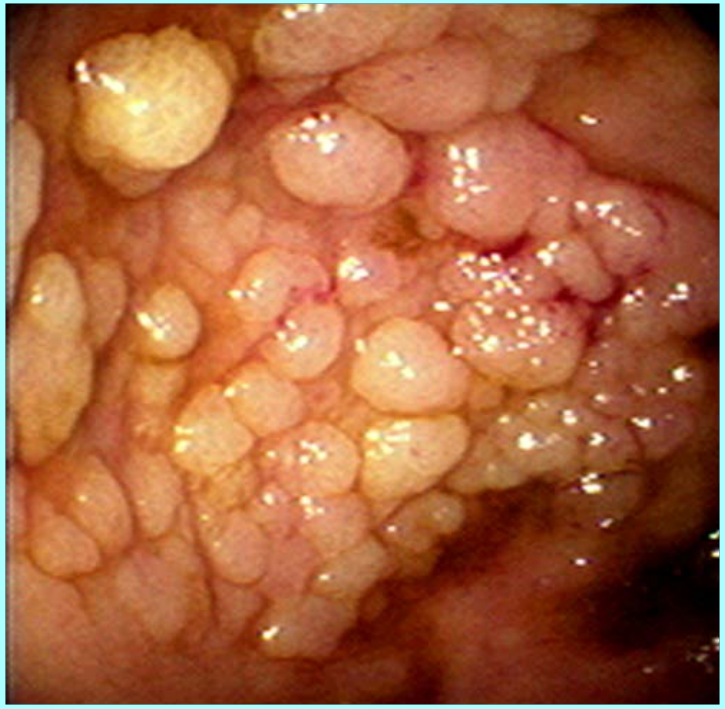




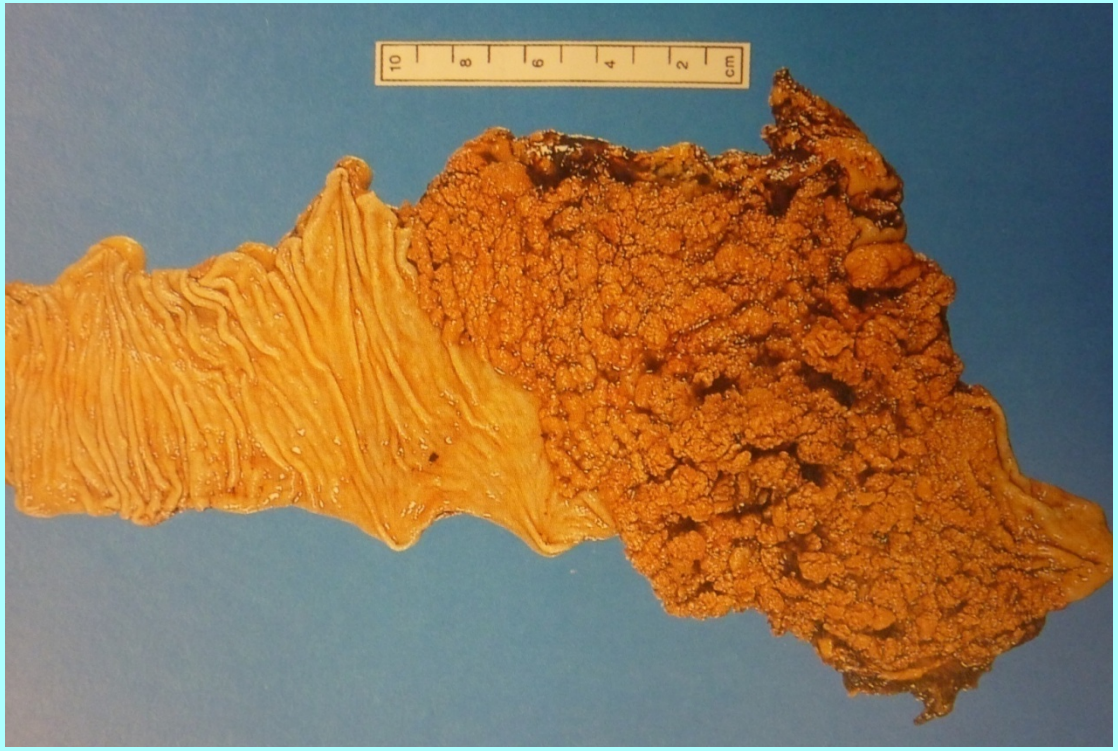


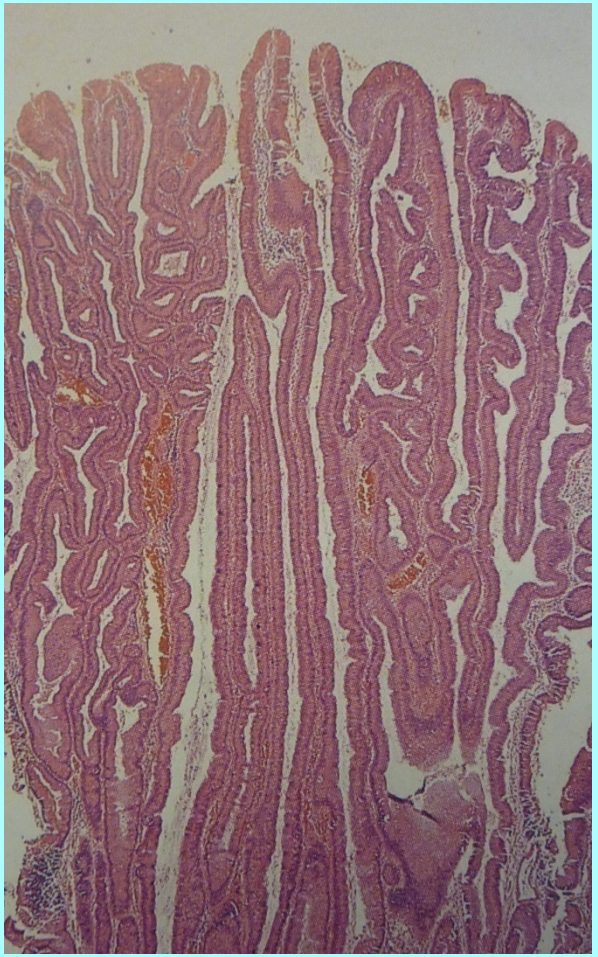
Villøst adenom:

- 5-15 %
- Villøs komponent, histologisk >75%
- Ofte eldre personer
- Ofte ikke stilk
- Villøs- større risk for cancer



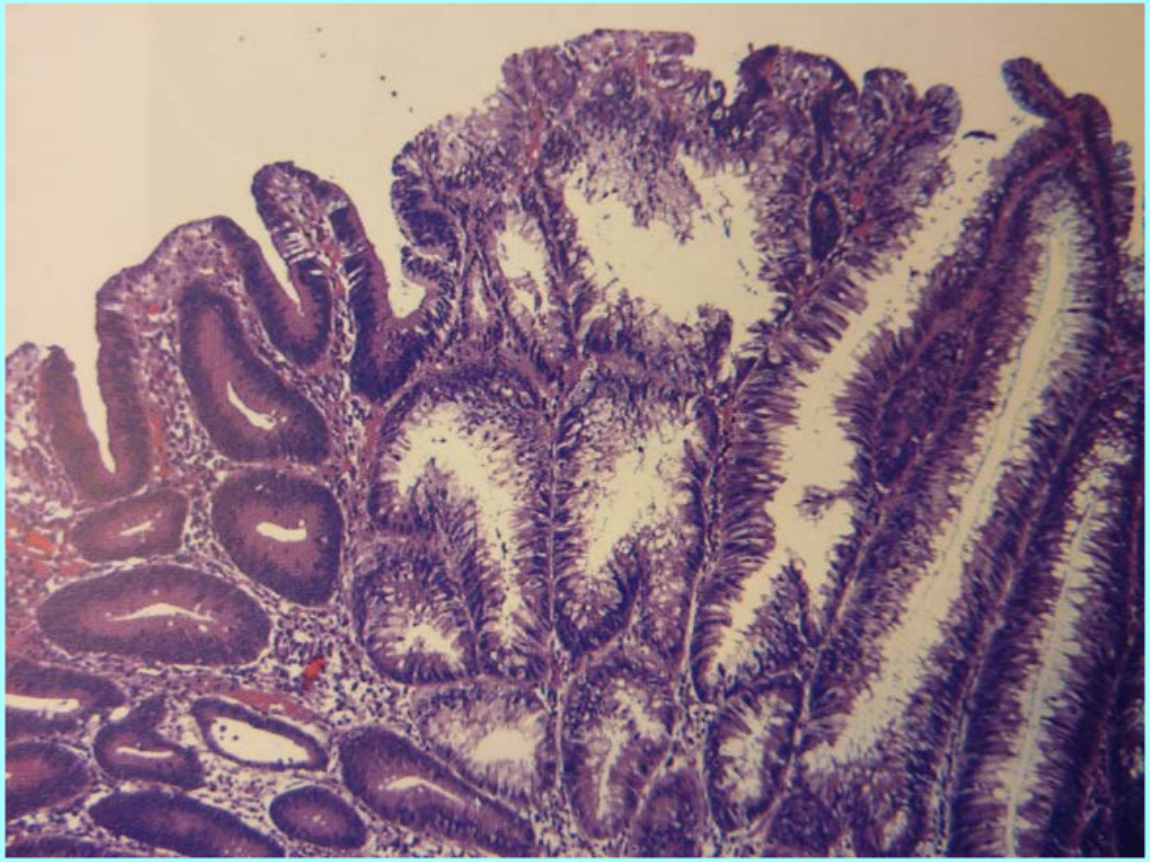
Villøst adenom



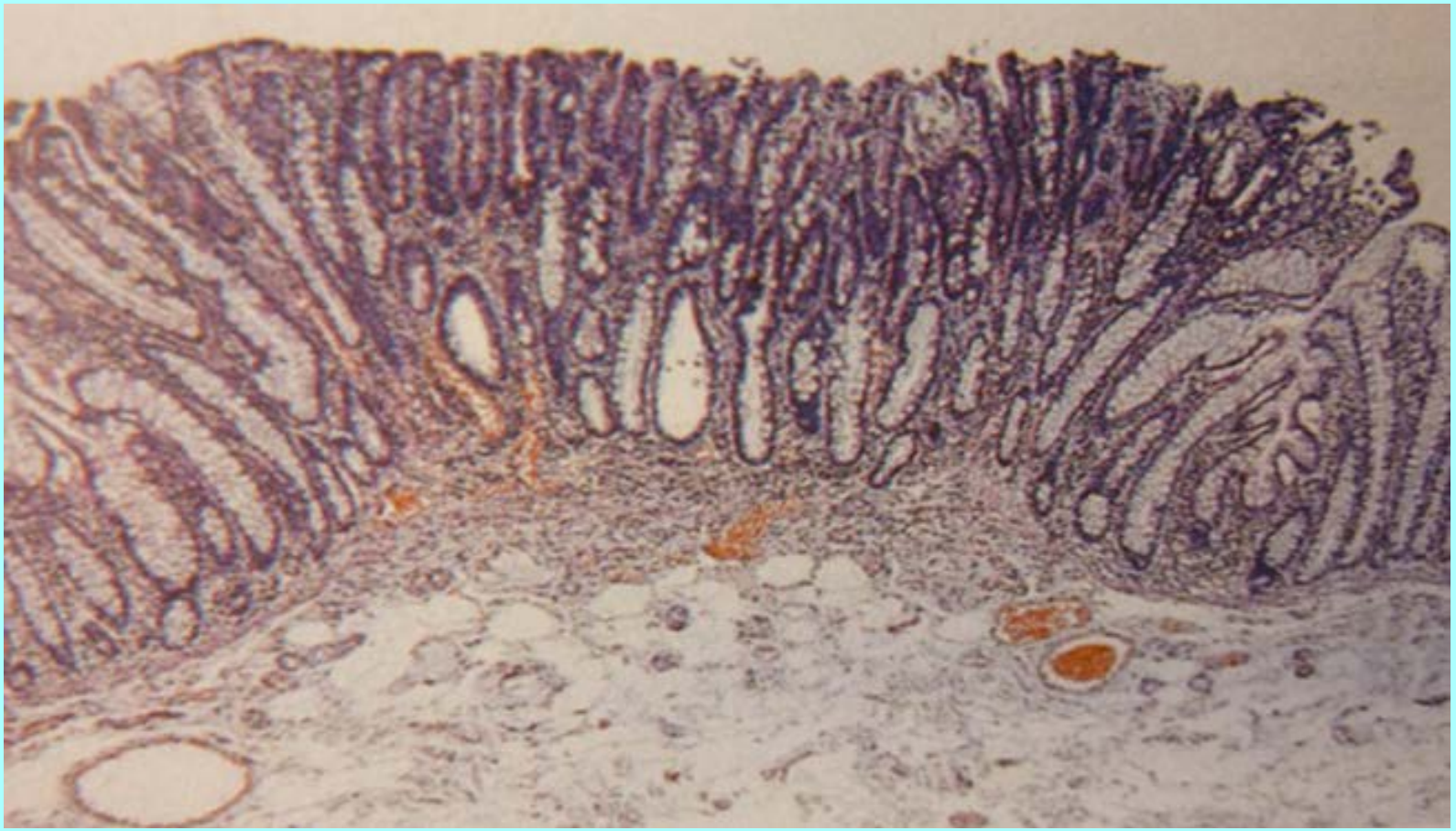


Tubulovilløst adenom

- 5-15 % av adenomene
- Villøs komponent: 26- 75 %

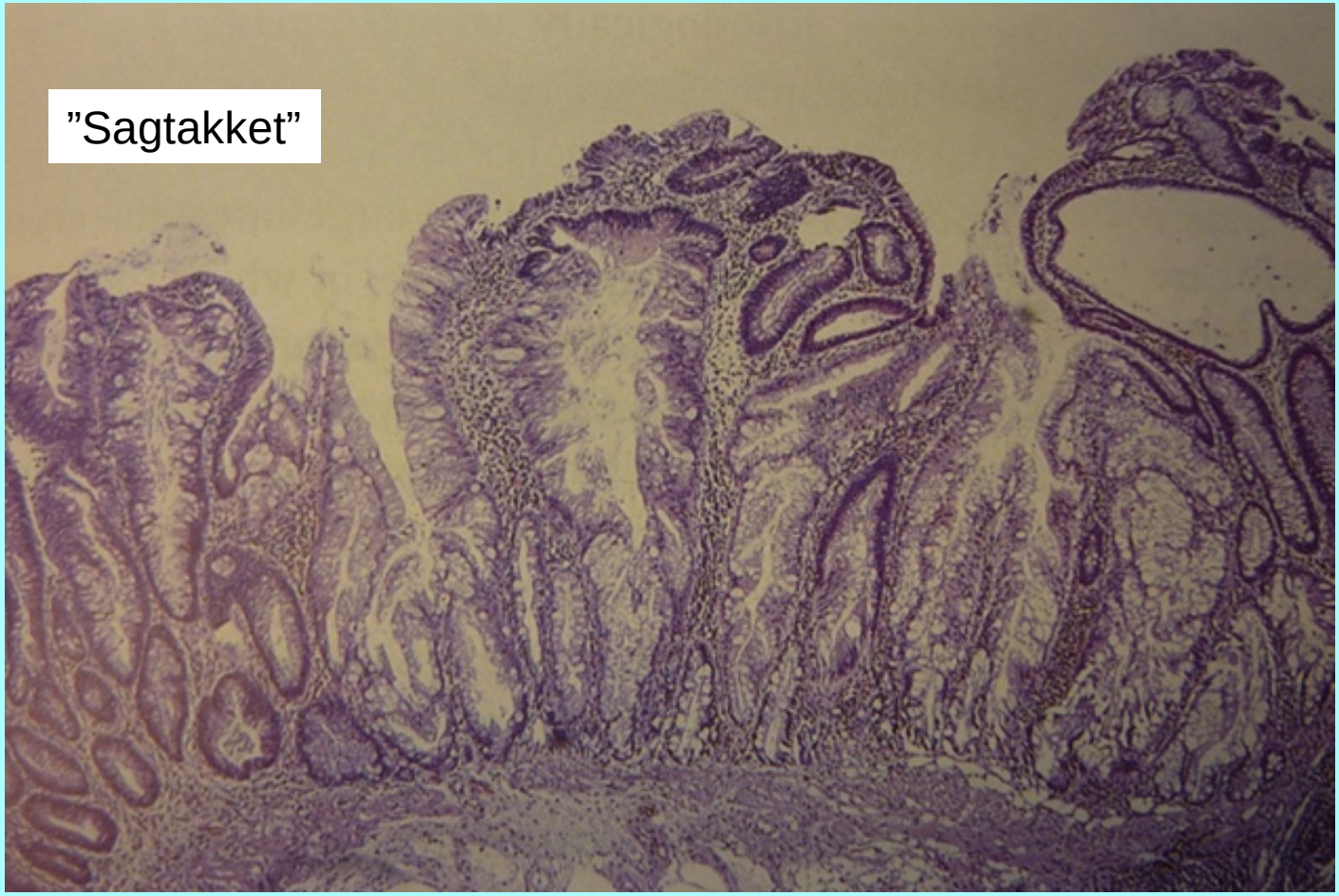


Flat adenom, nedsunket type



Serrated adenoma

”Blandet hyperplastisk og adenomatøs polyppvekst”

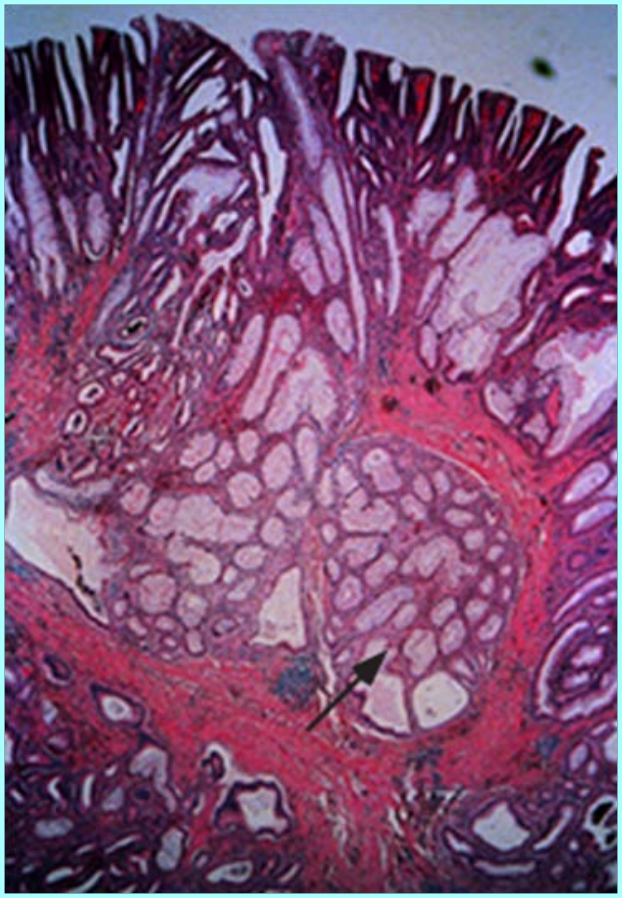


ADENOMER

Negative faktorer- malign:

- Villøs
- Større
- Høygradig, histologisk

Invasiv malignitet: gjennom muscularis mucosa



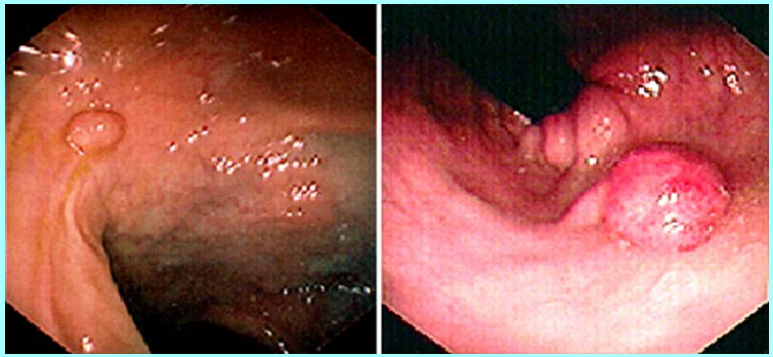
Adenom med pseudoinvasjon

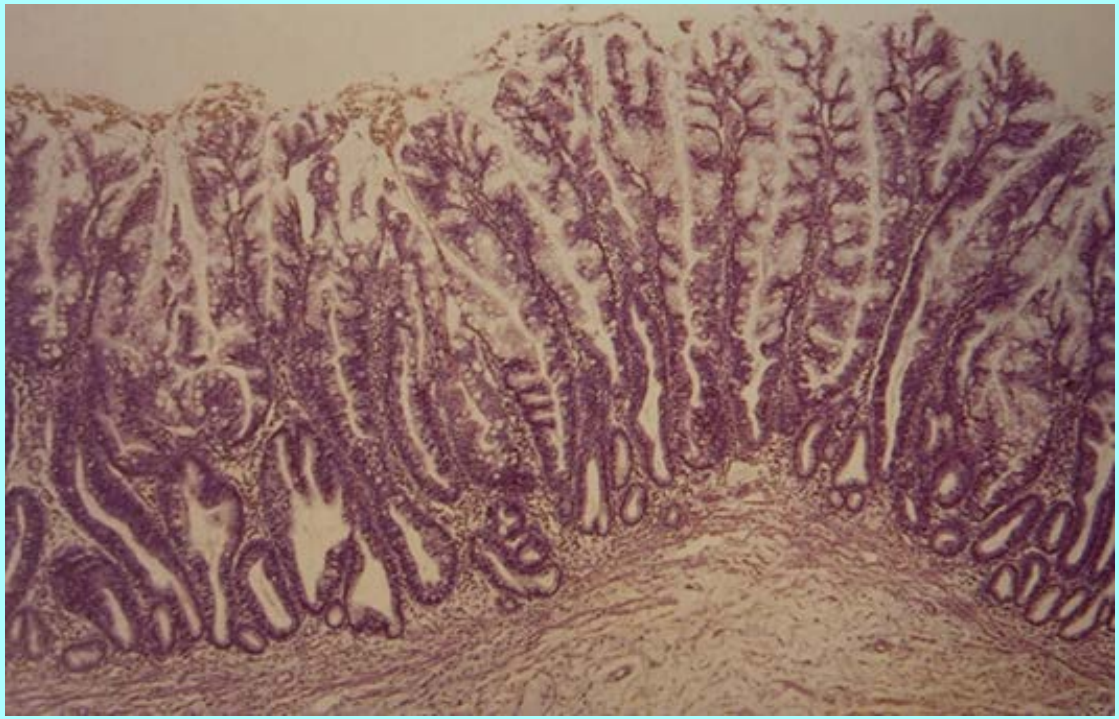
IKKE- NEOPLASTISK

Hyperplastisk polypp

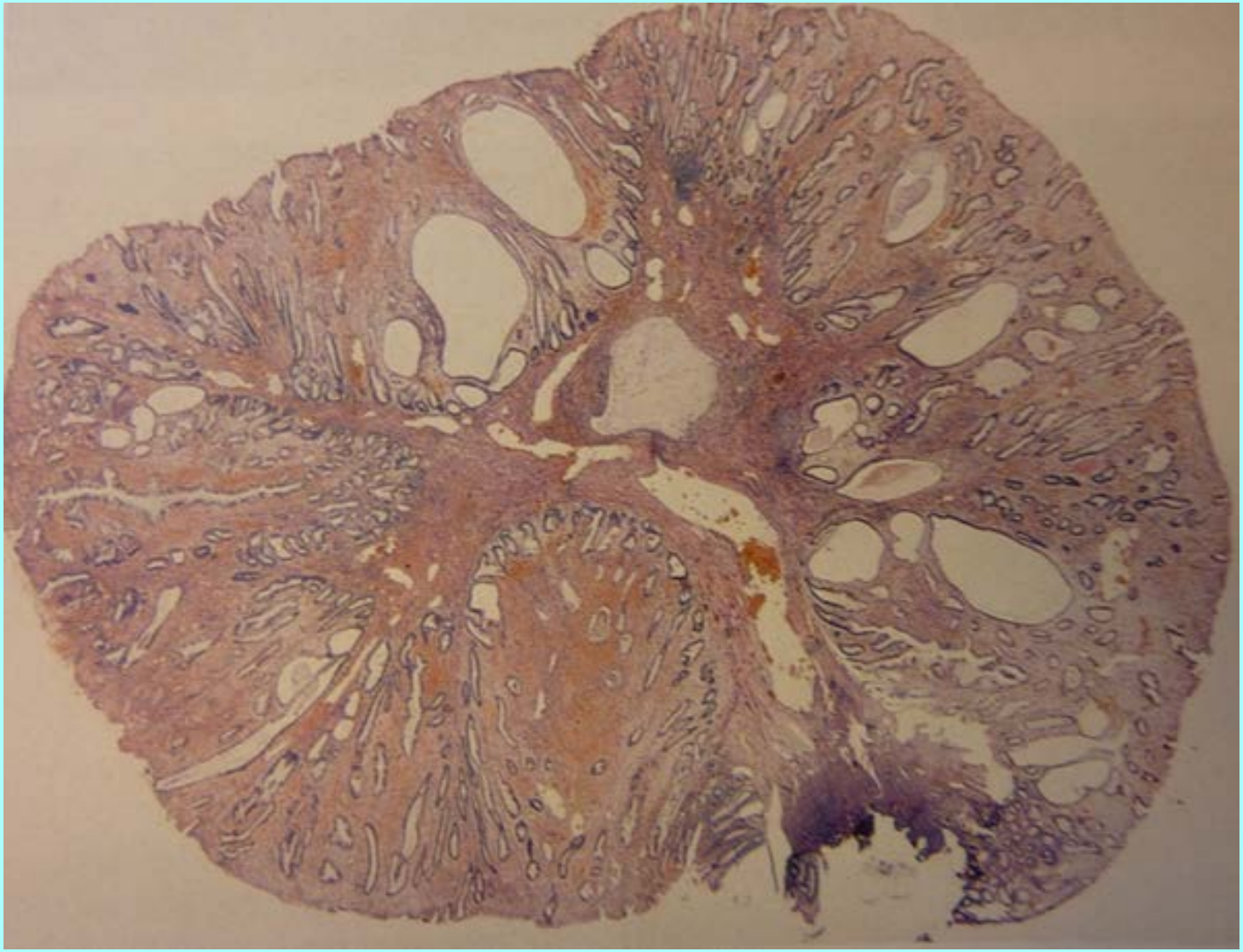
- Hyppig (30- 50 % i befolkningen)
- Ofte små (<5 mm)
- Ikke histologisk dysplasi
- Skopi- kan ikke skille fra adenom!
- (Stor (>2 cm.) mulig lett malignitetsrisk)

Hyperplastisk polypp





Inflammatorisk polypp



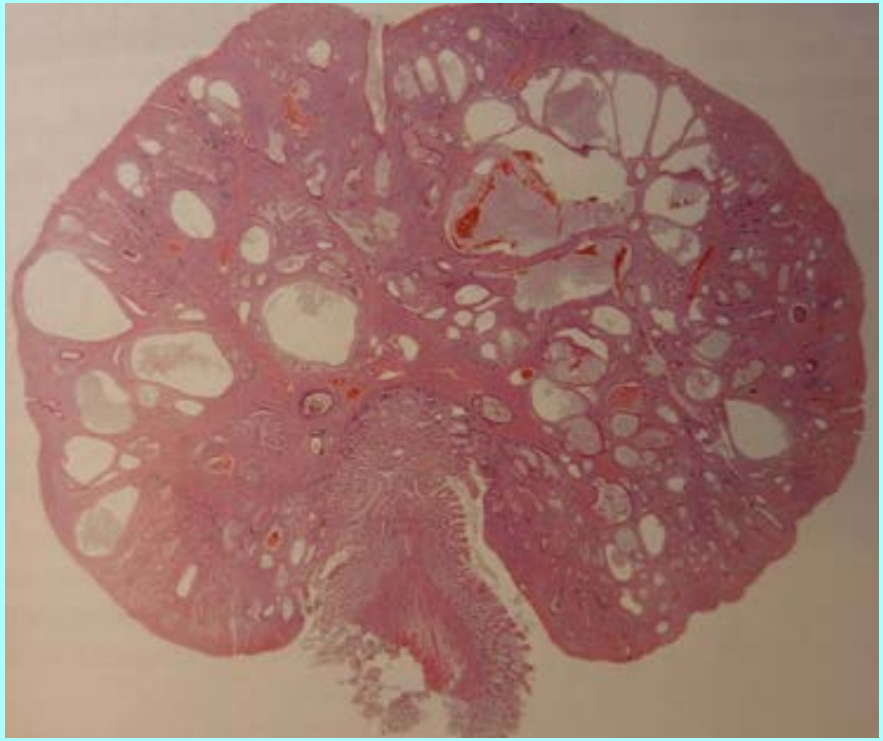
Juvenil Polypp

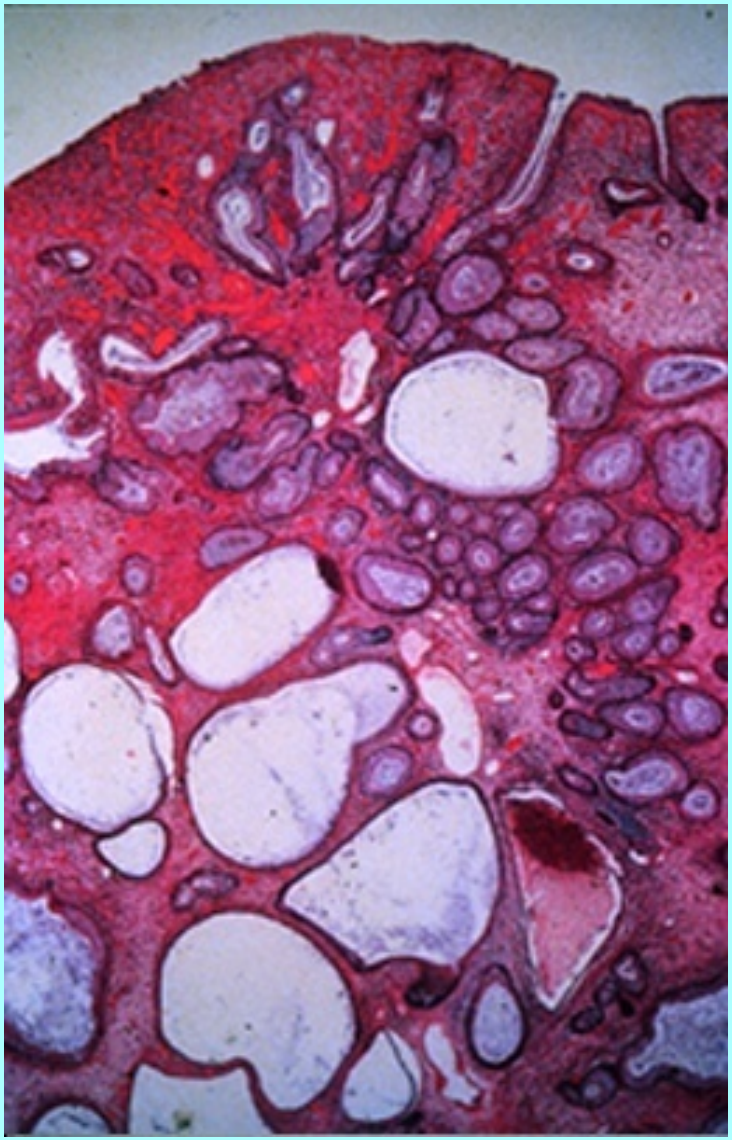
- Ofte< 5 år
- 80% i rektum
- Hamartomatøse
- Rik lamina propria og dilaterte cystiske kjertler

  (Istedenfor økt antall av epiteliale celler)

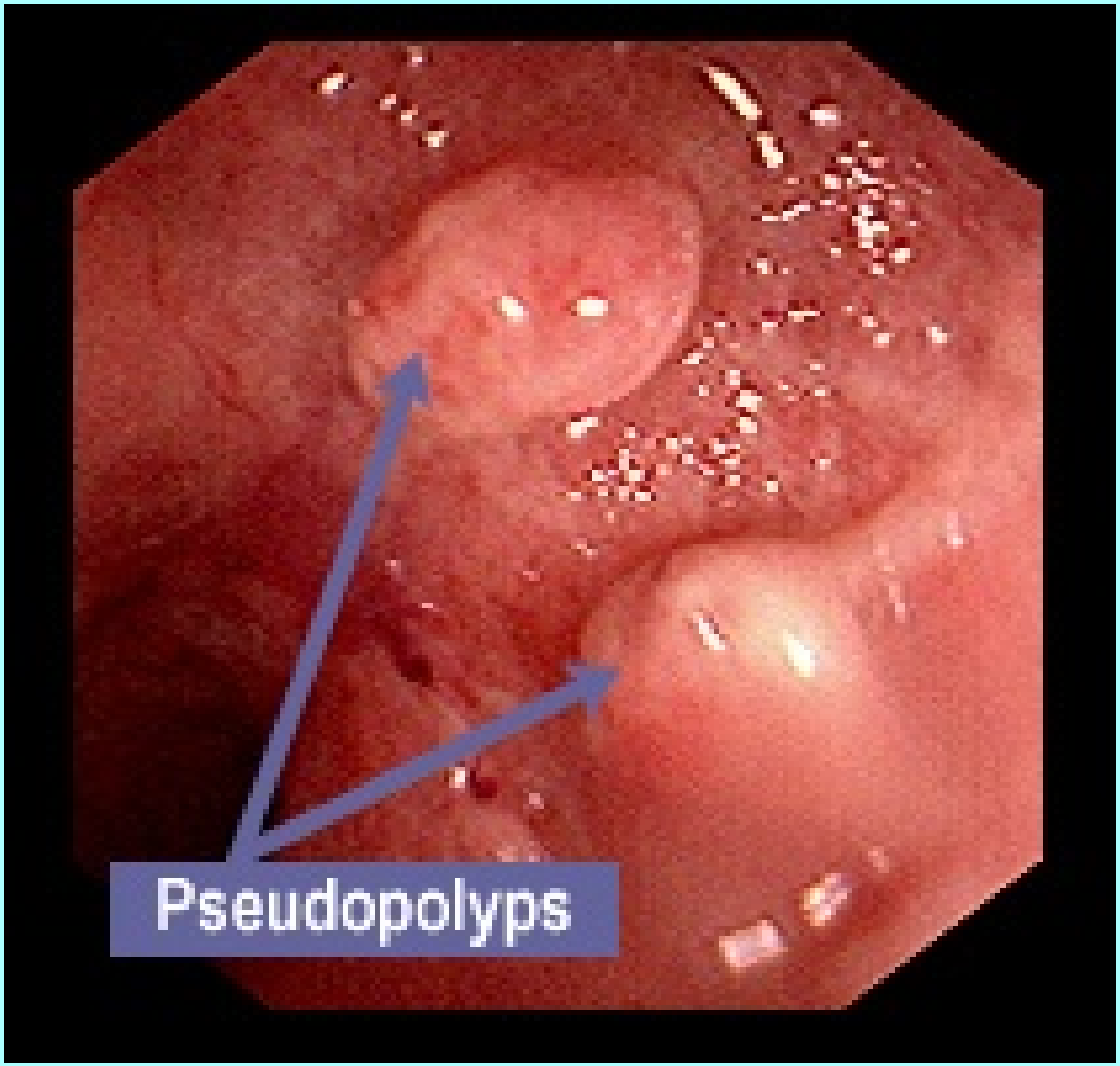
- DD: Inflammatorisk polypp

Juvenil colon polypp



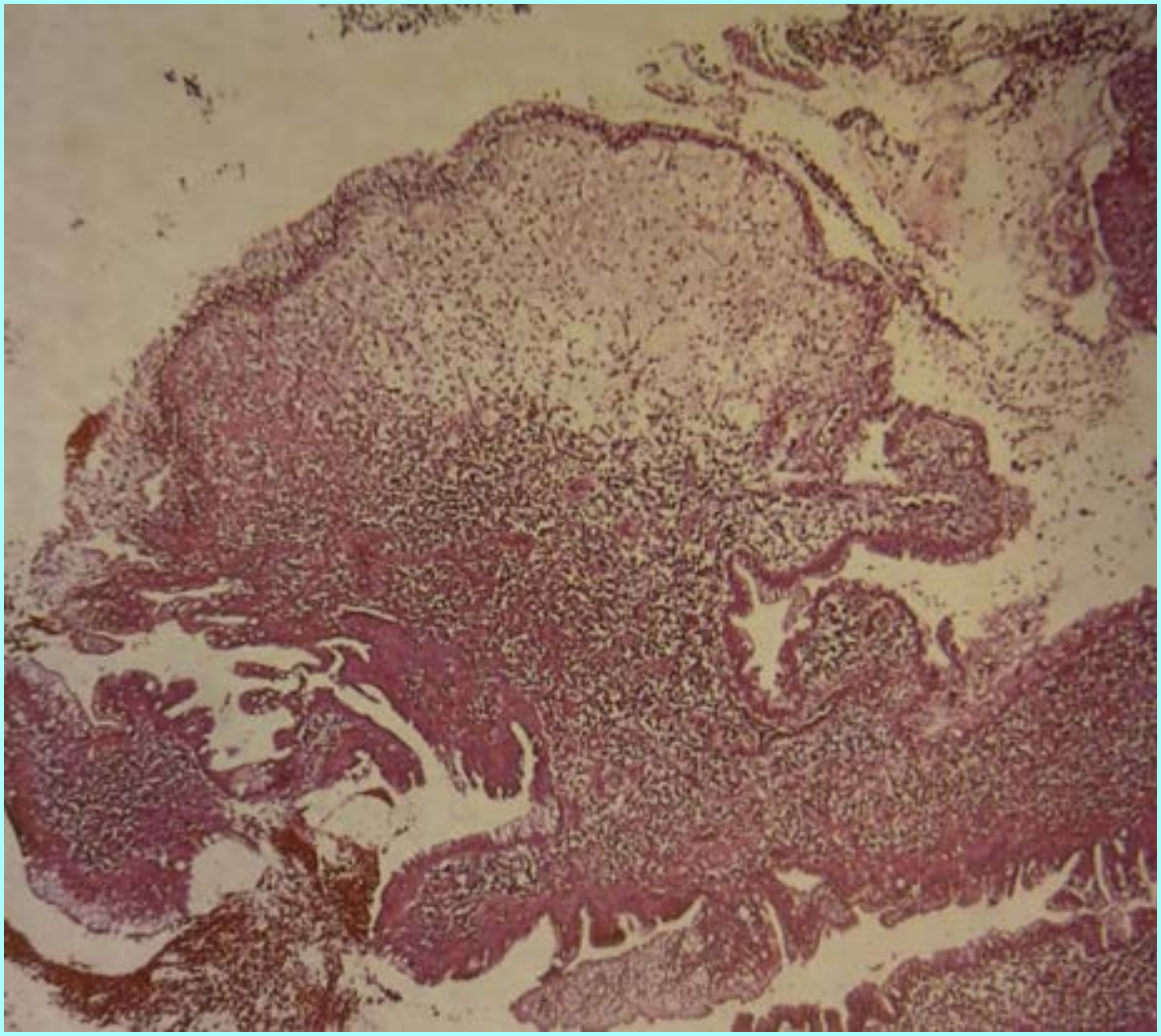


Pseudopolypper ved IBD

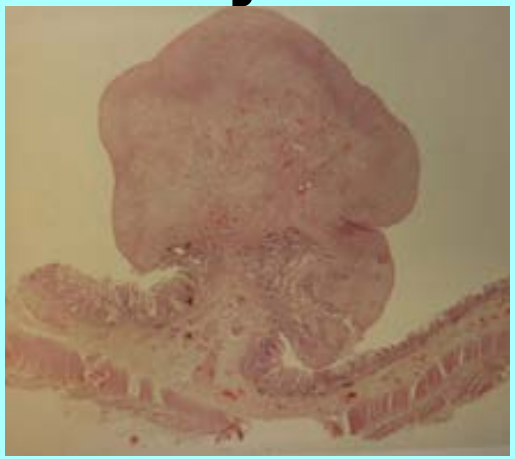


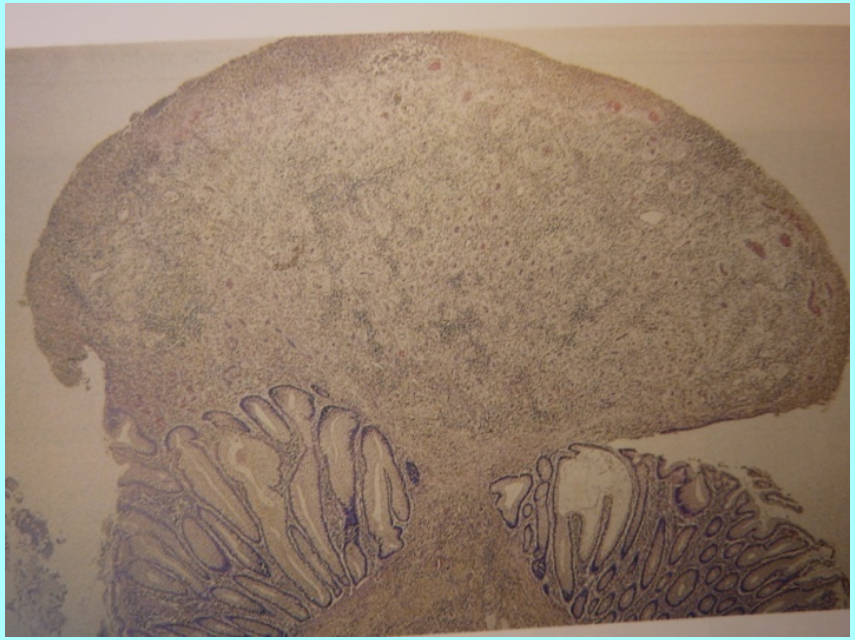
Colitis polyposa, ulcerativ colitt

Inflammatorisk polypp i ulcerativ colitt



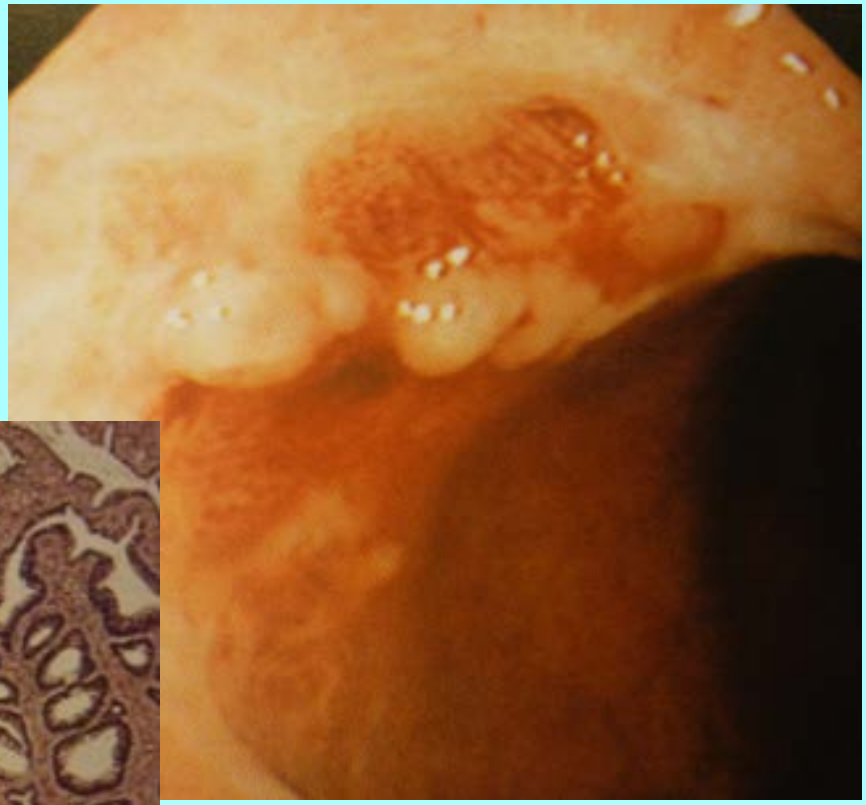
Inflammatory cap polyp
Kappe av granulasjonsvev

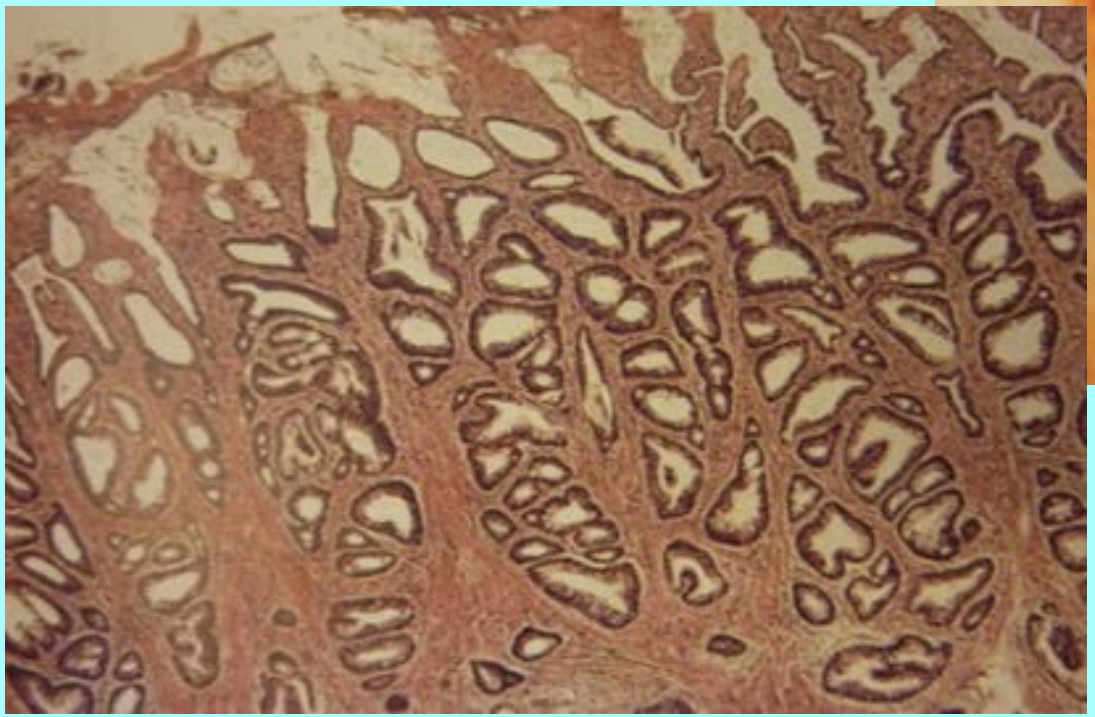




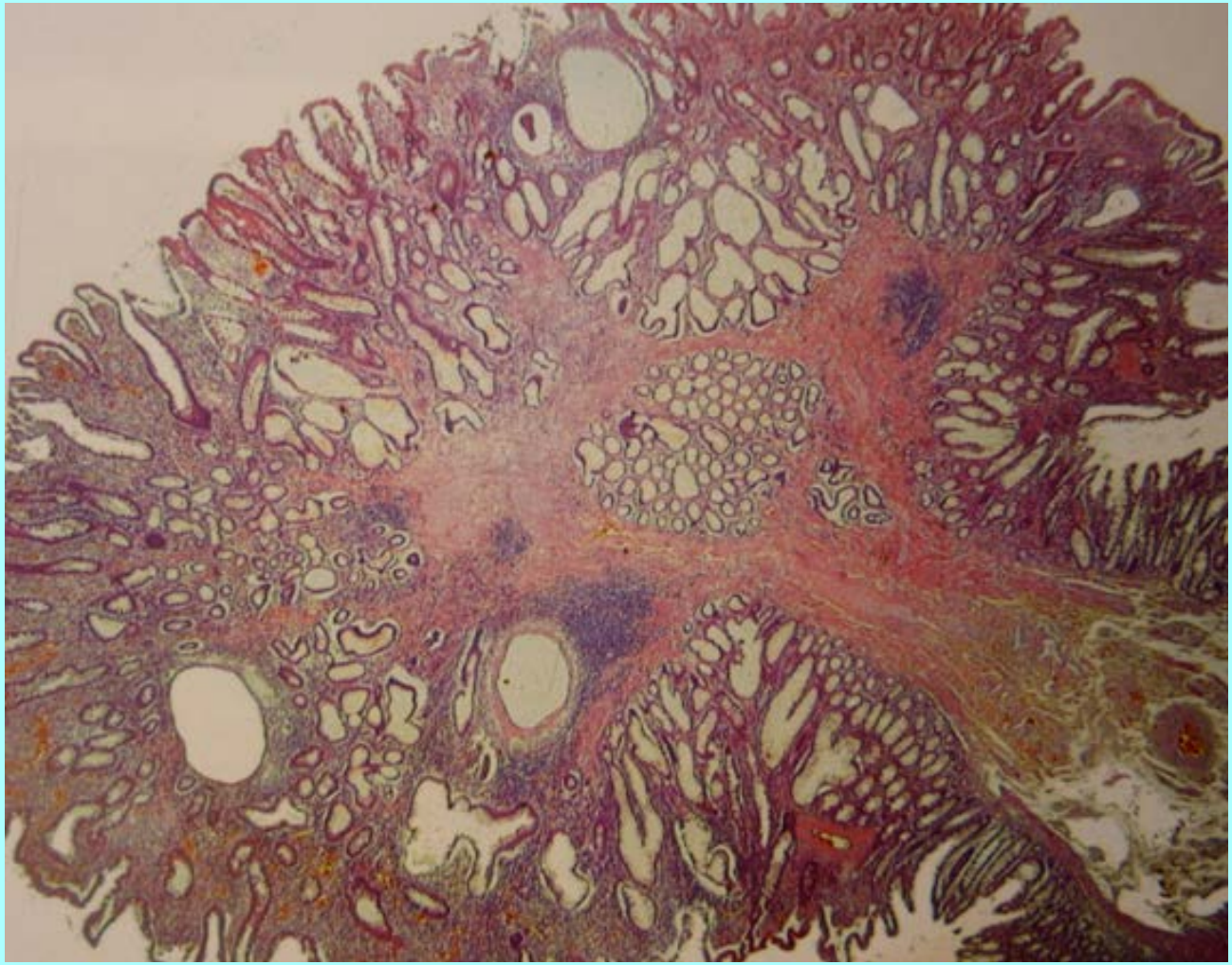
Mucosal prolapse syndrome

Solitary rectal ulcer





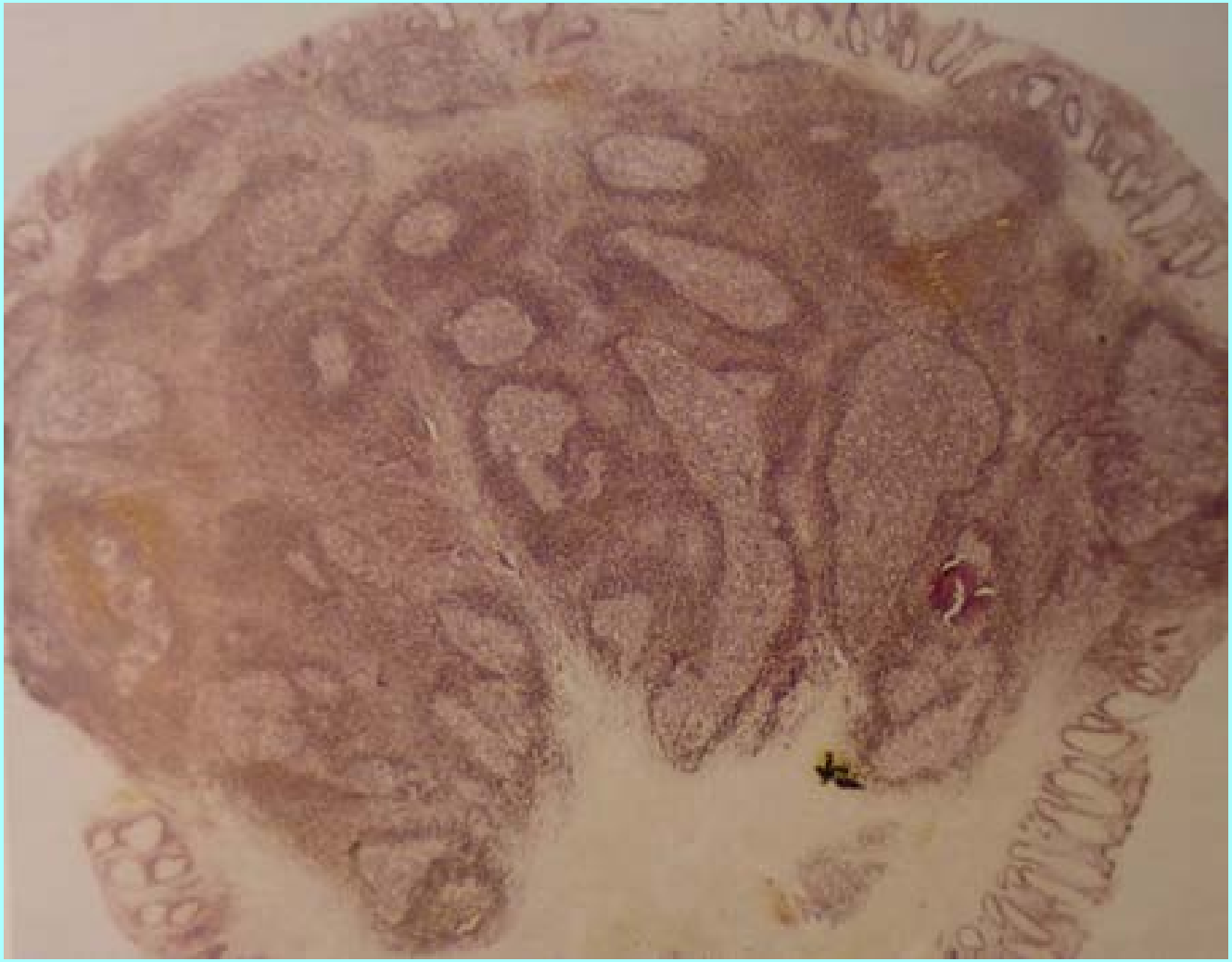
Inflammatory myoglandulær polyp



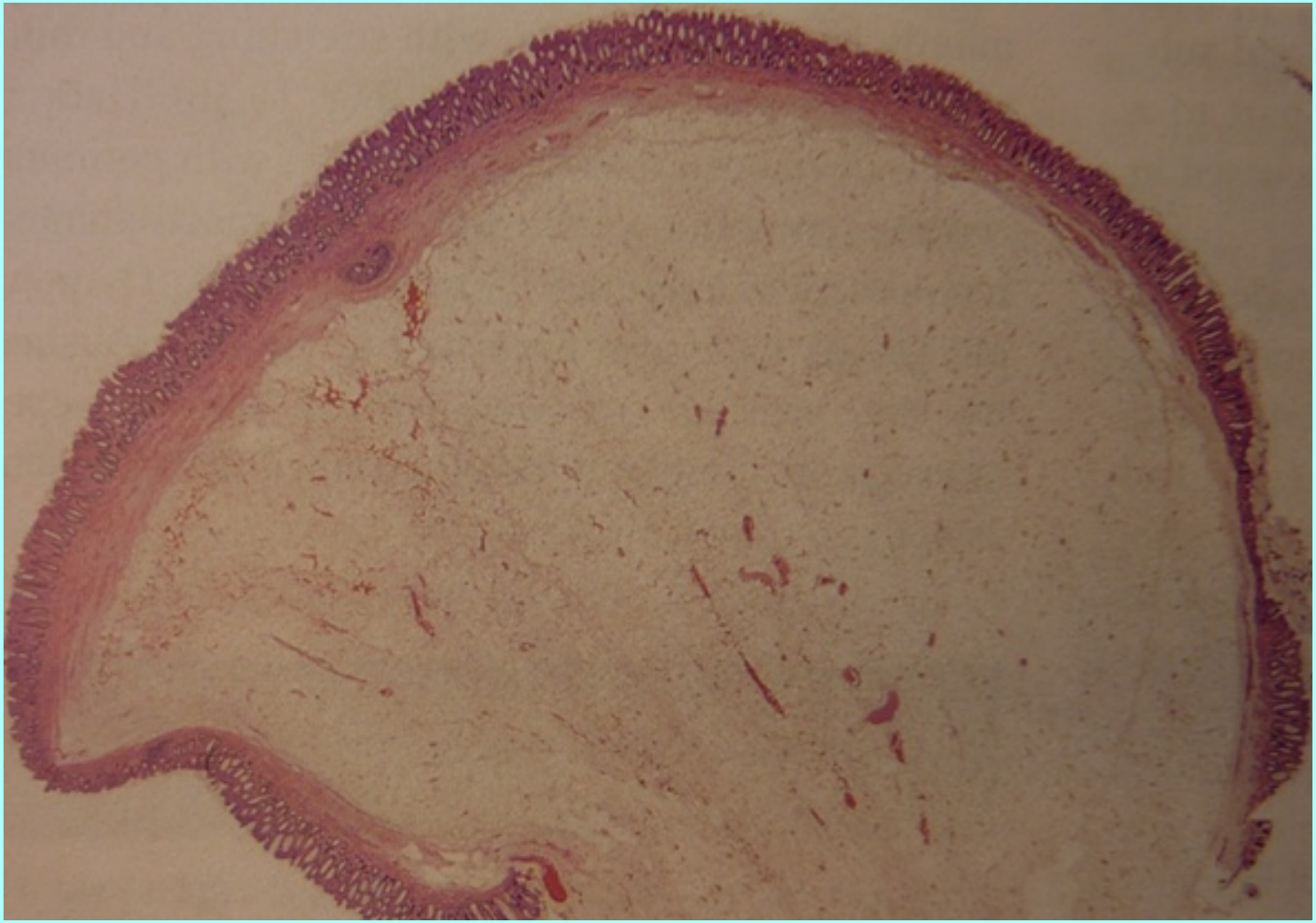
SUBMUKOSALE POLYPPER

- Lymfoide aggregater
- Lipom
- Leiomyom
- Hemangiom
- Fibrom
- Carsinoid
- Pneumatosis cystoid intestinalis
- Metastase

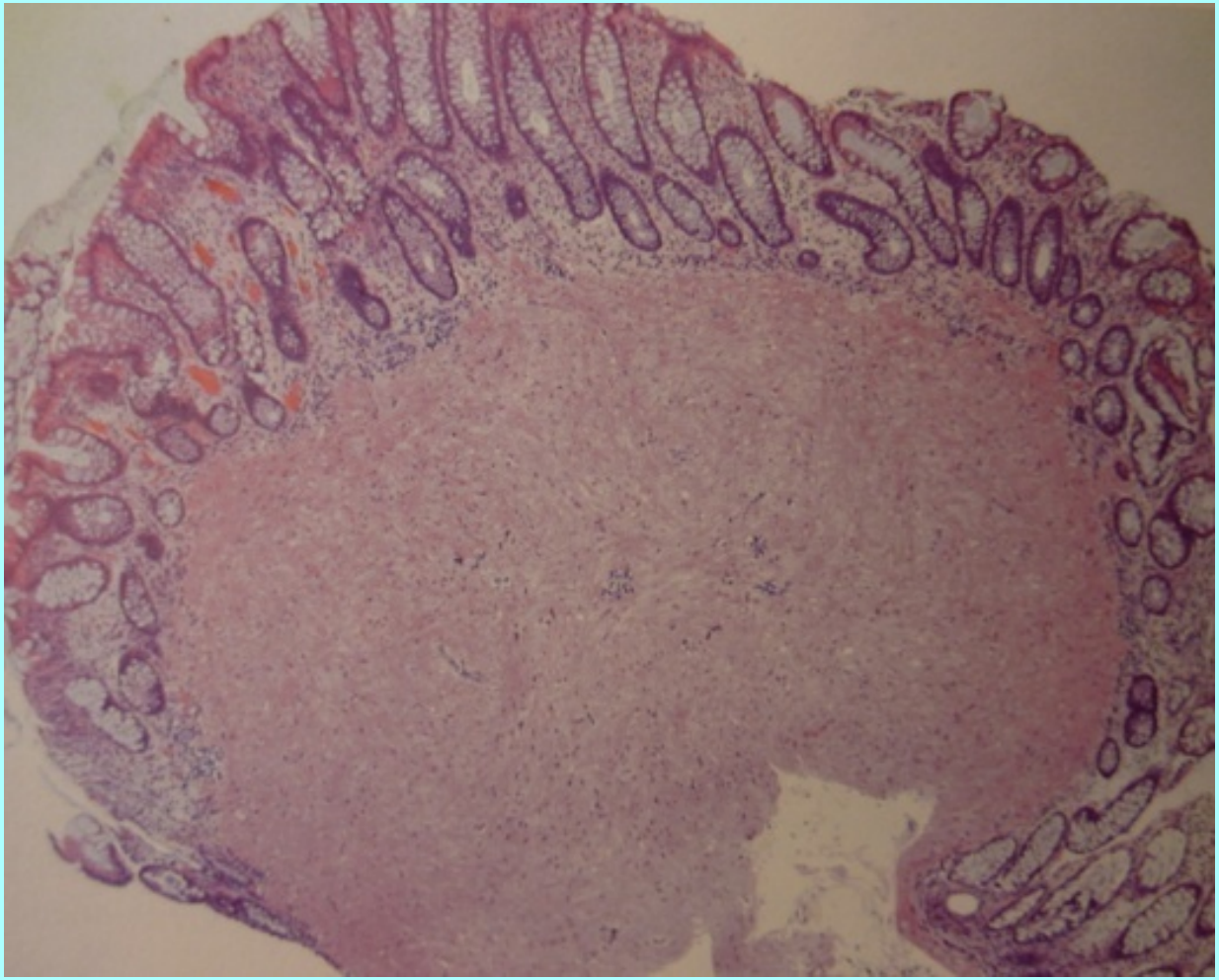
Benign lymfoid hyperplasi



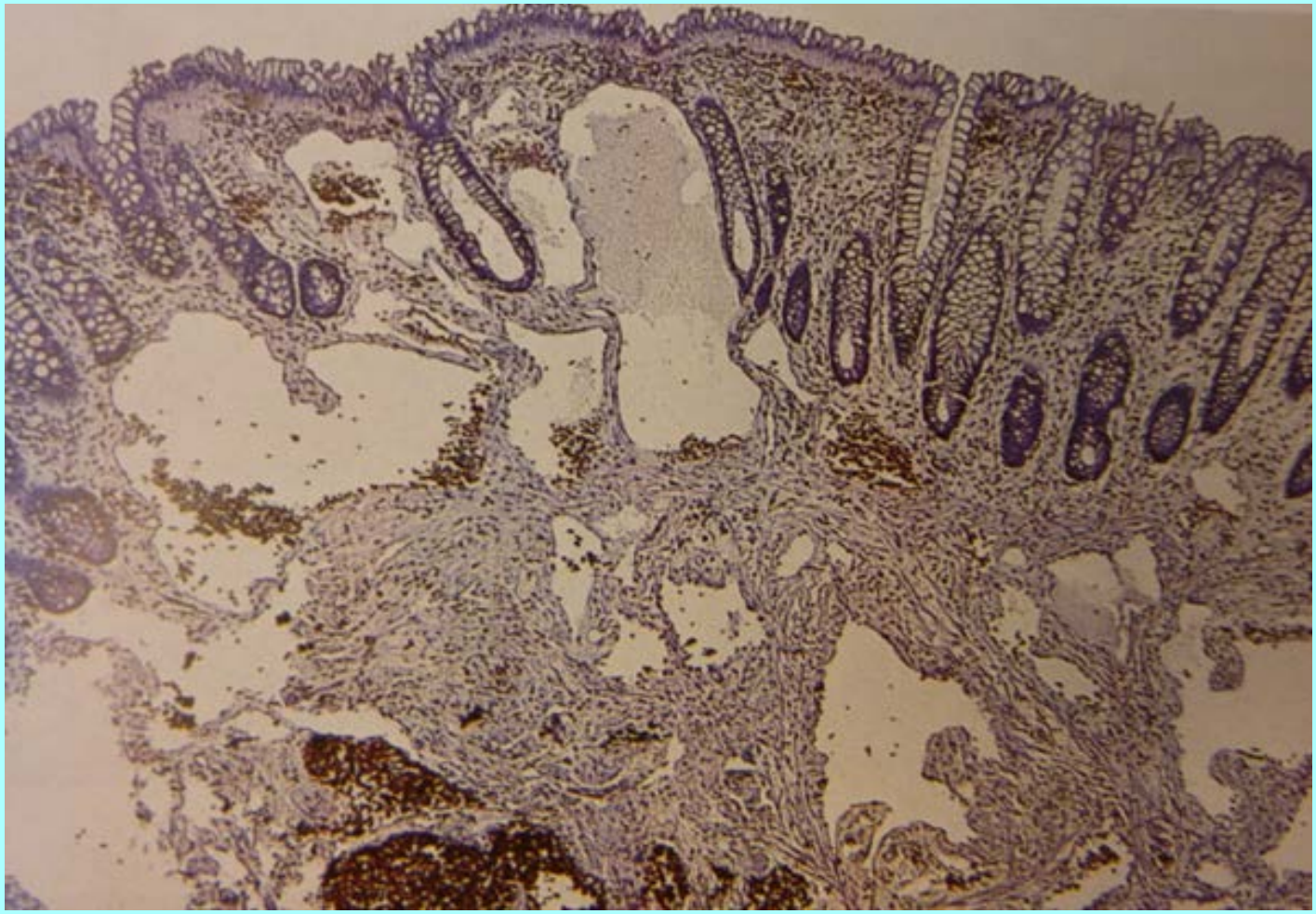
Polypoid lipom



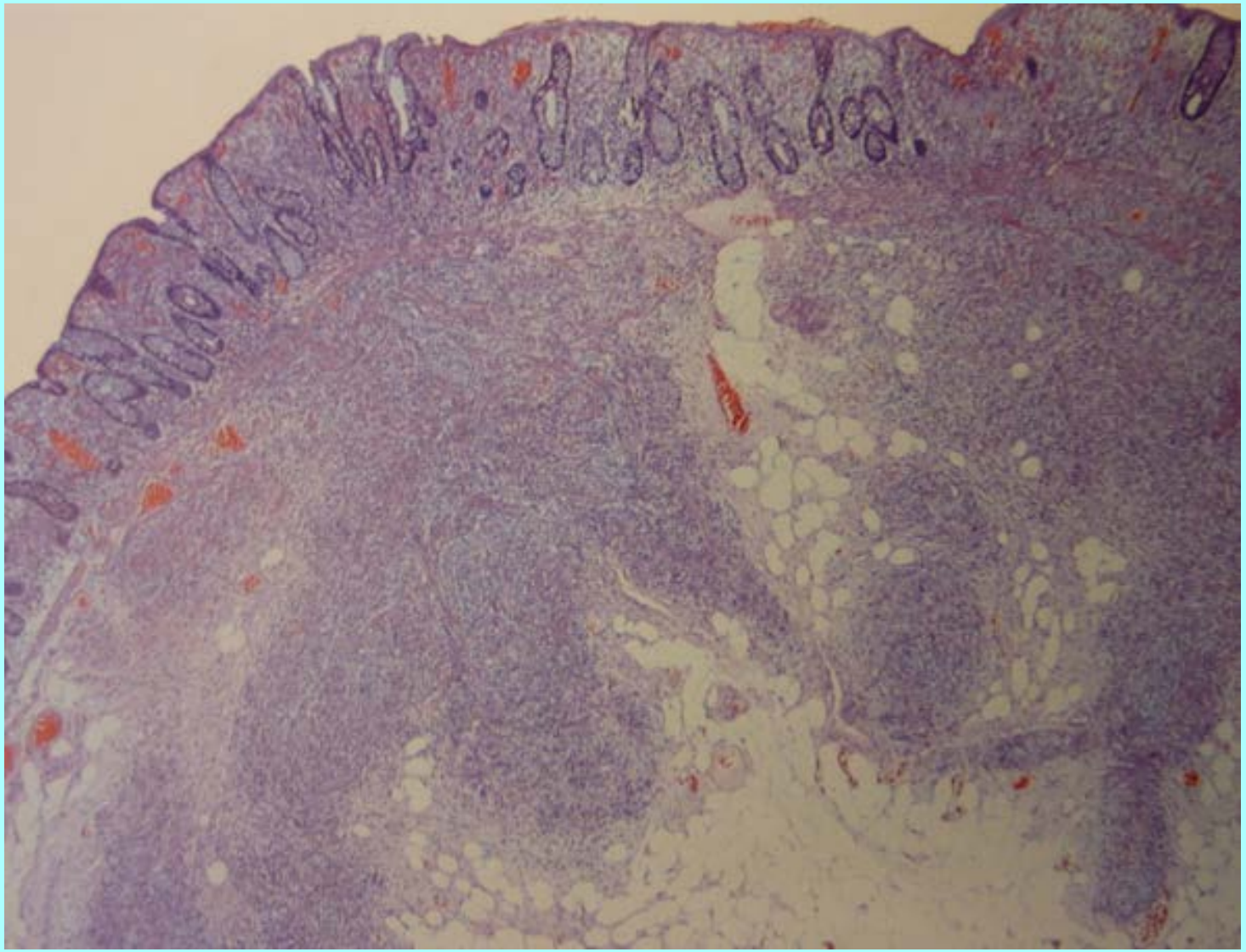
Polypoid leiomyom i muskularis mucosae



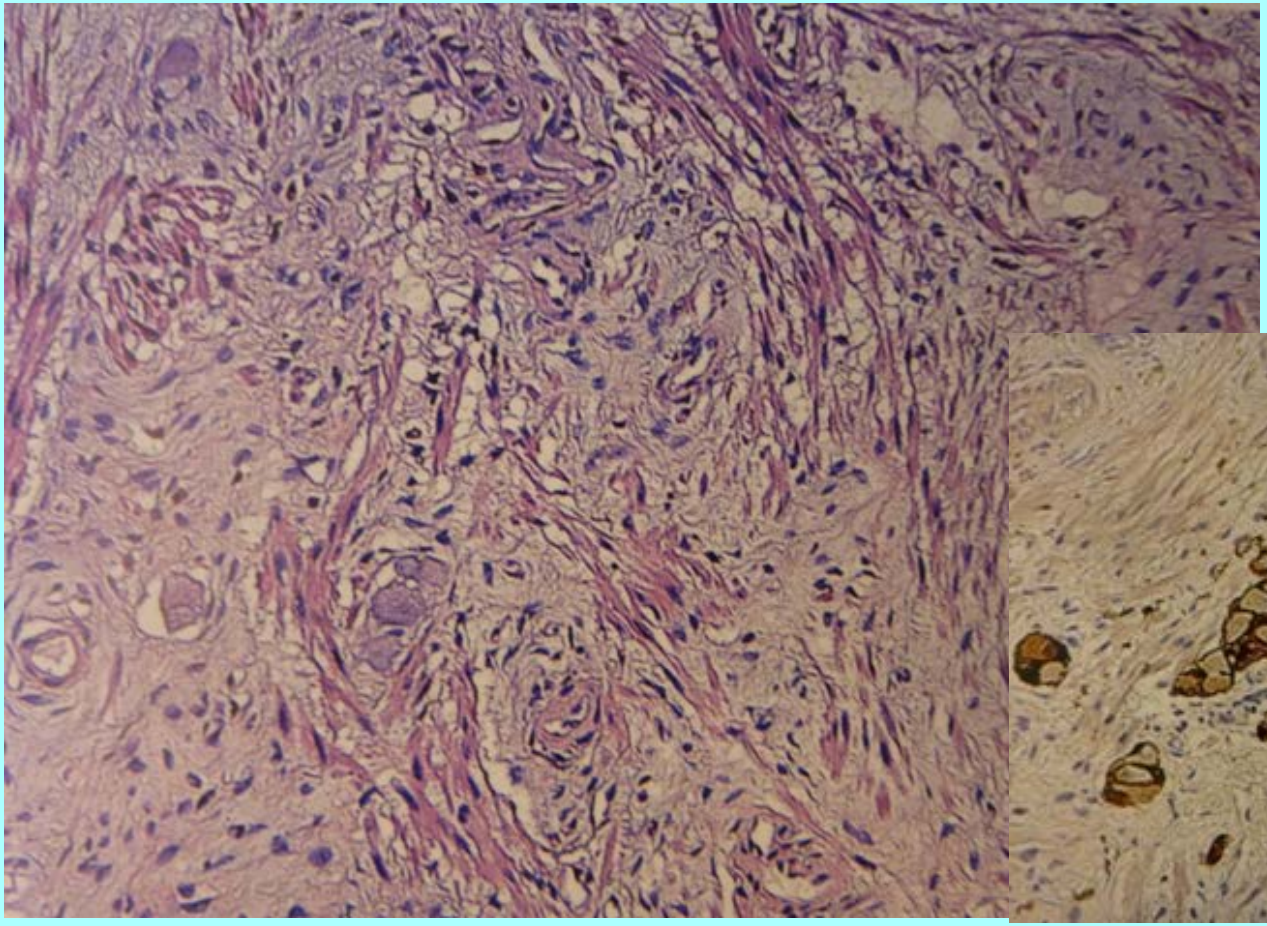
Vaskulært hamartom



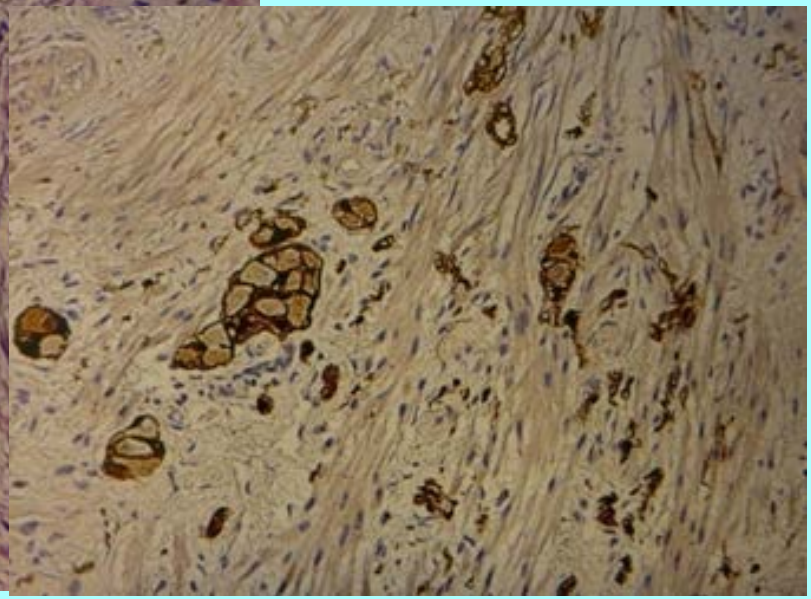
Neurofibrom



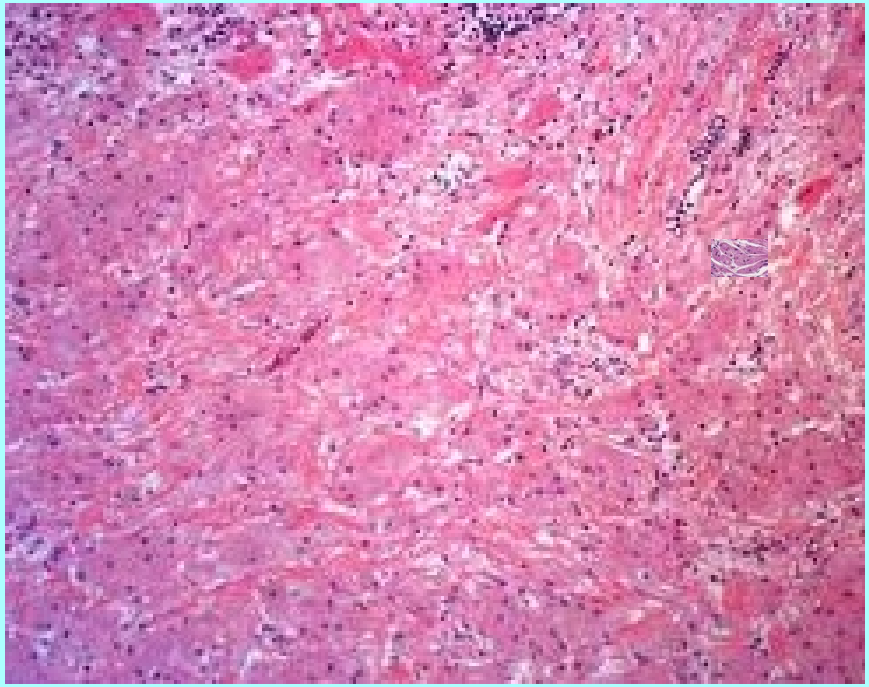
Ganglioneurom

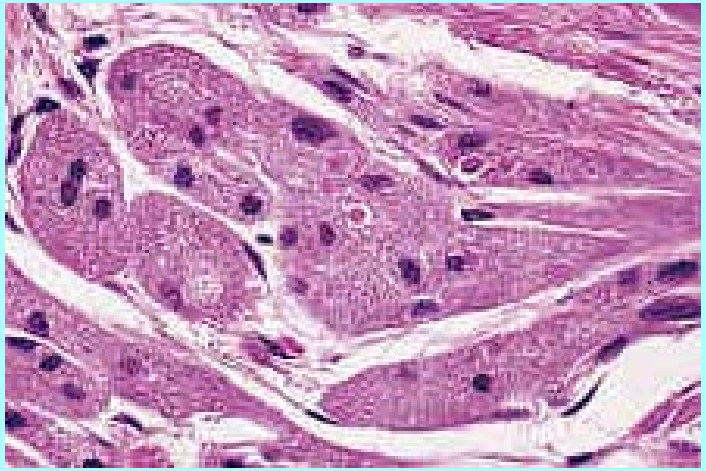


S 100, immun.

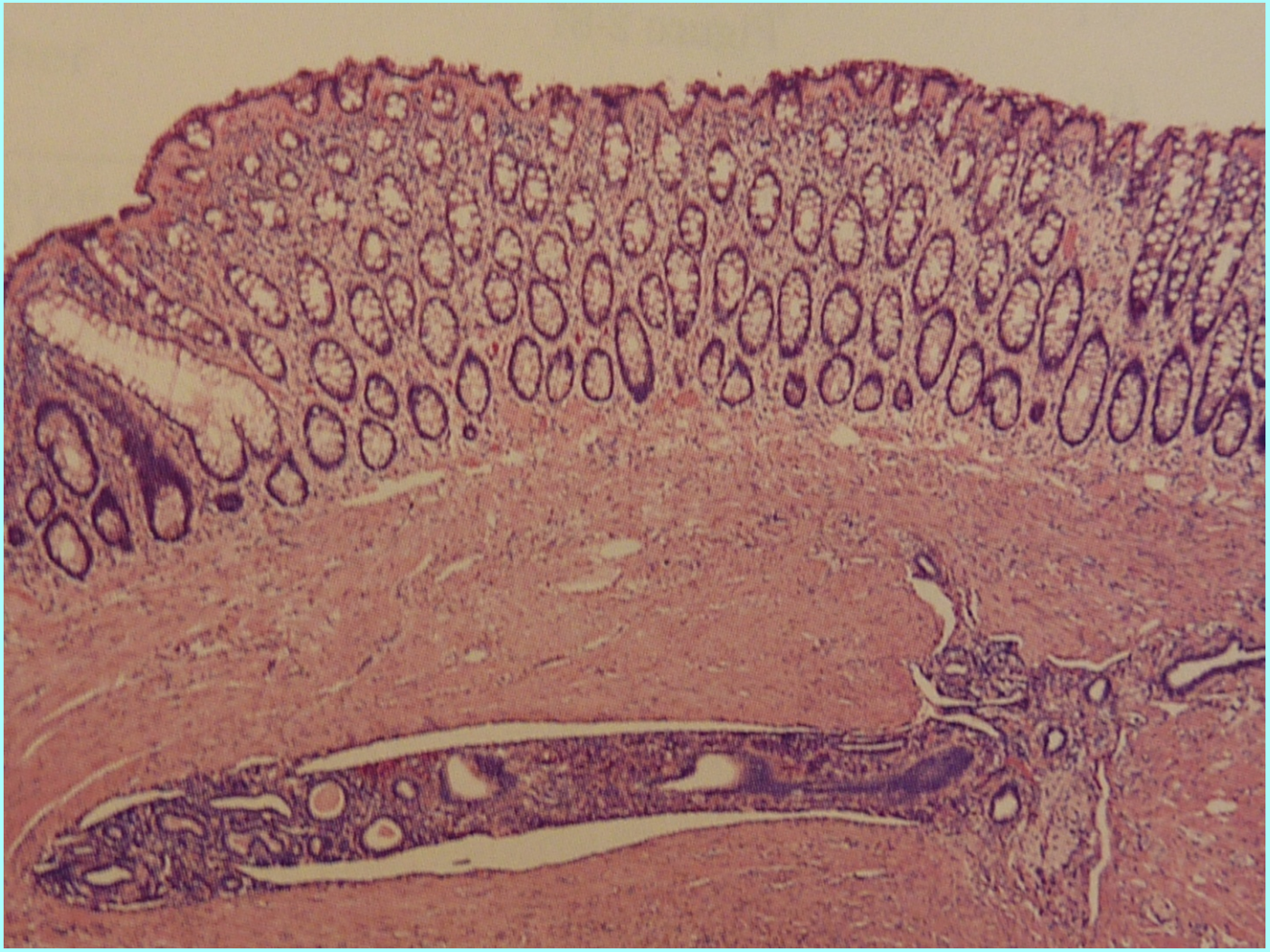


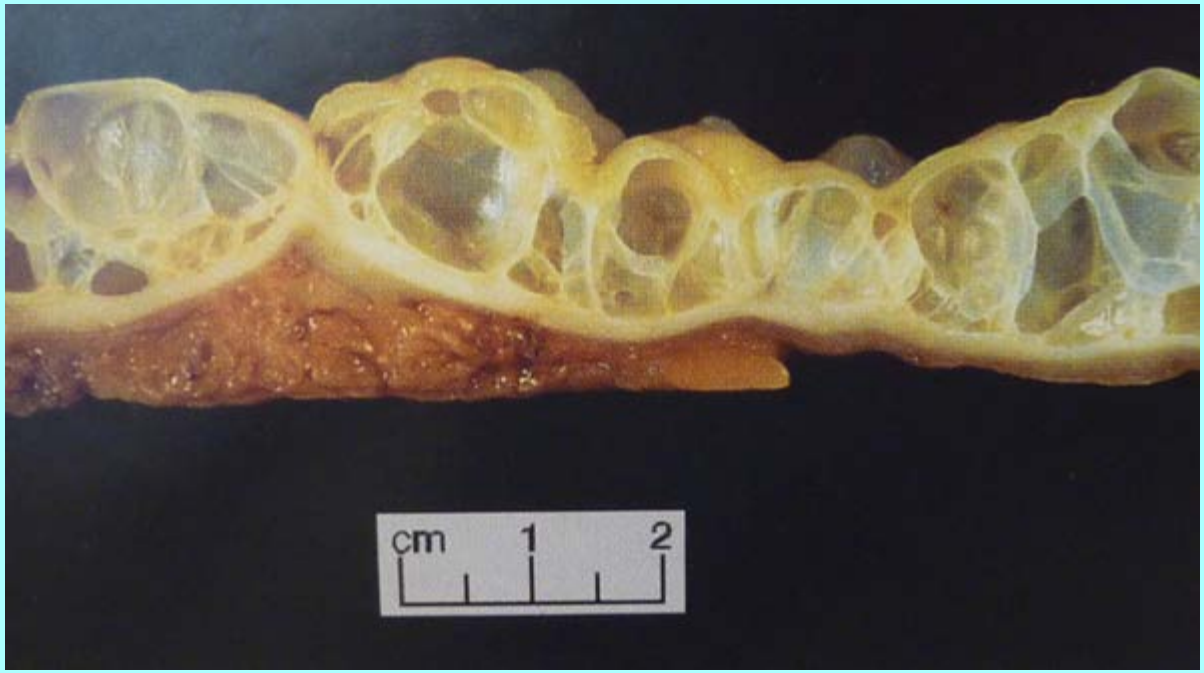
Polypoid granular cell tumour





Endometriose





PNEUMATOSIS INTESTINALIS

Polyposis syndrome

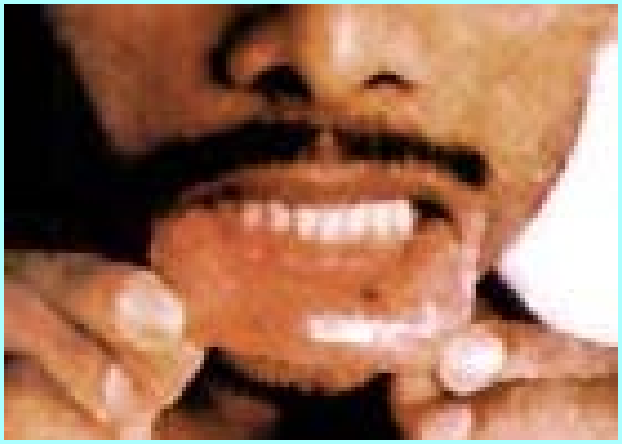
Familiær Adenomatøs Polyposis (FAP)

- Autosomal dominant
- 100- 1000-- adenomer
- Økt risk for å utvikle colorectal cancer
- I noen familier- mave cancer
- Mutasjon i APC (adenomatøs polyposis recti) gen (Mangel på APC: cellemigrasjon , adhesjon (her minker)/ ATP passer på celleproliferasjon (her øker))

ATTENUATED FAP (Heriditær flat adenoma syndrome)

Familiær polypose coli (Familiær adenomatøs polypose)

Peutz- Jeghers syndrome



- (autosomal dominant)
- Polypper i tynntarm (alle), colon og rectum
- Non- gastrointestinal cancer
- Melanin flekk i kinnmukosa / leppe
- Hamartom
- Cumulative cancer risk på ca. 50 percent ved alder 60 år
- Oppfølging årlig

PEUTZ- JEGHERS SYNDROM

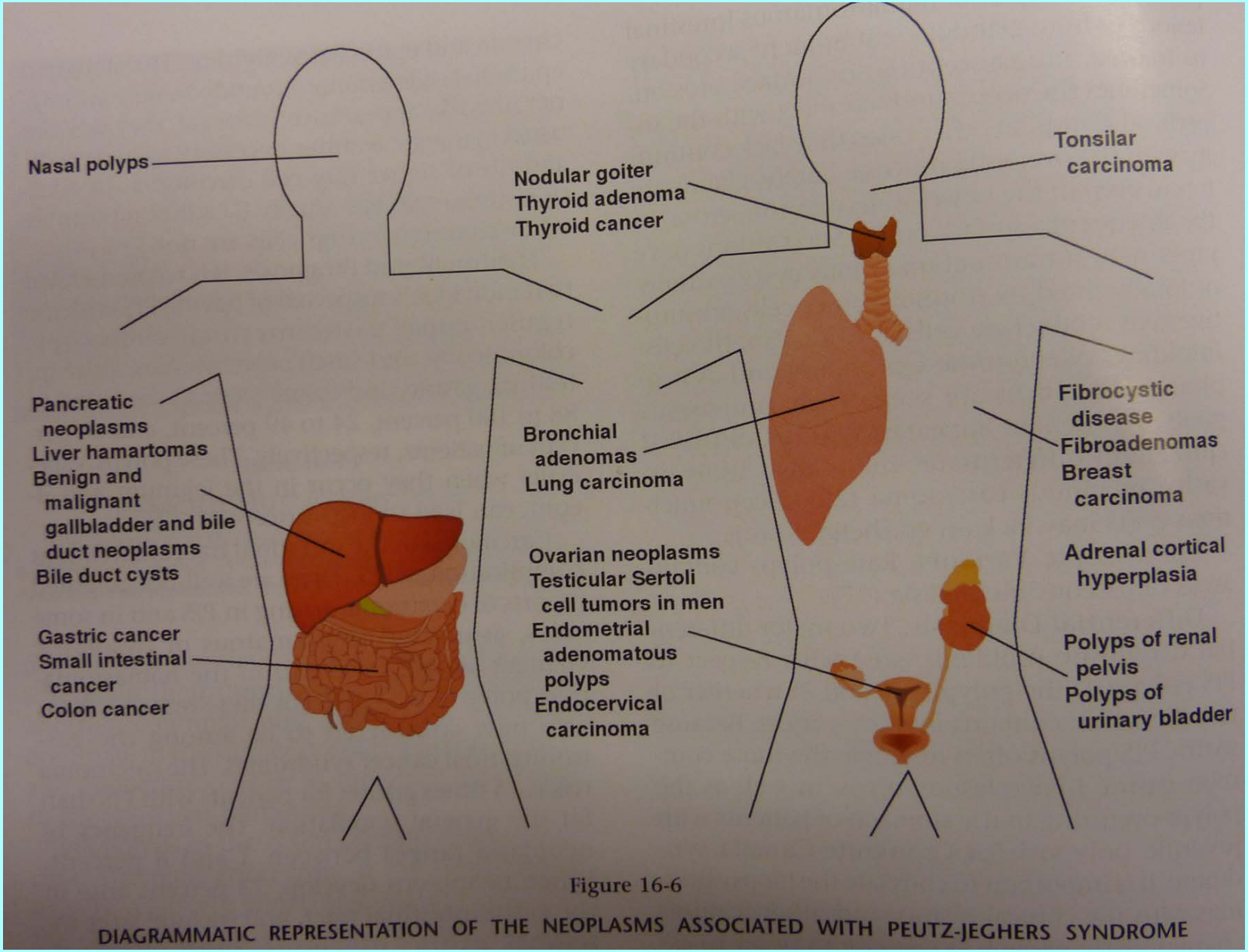
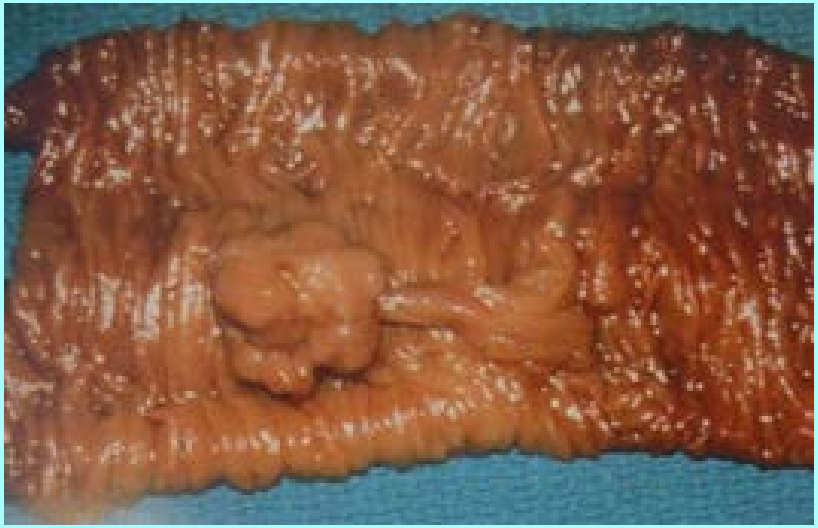
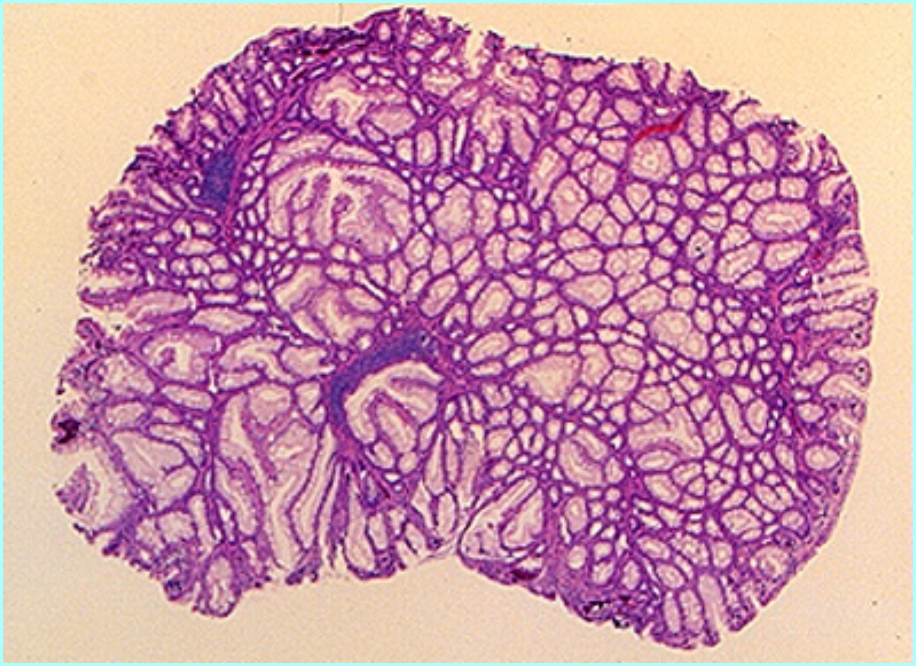


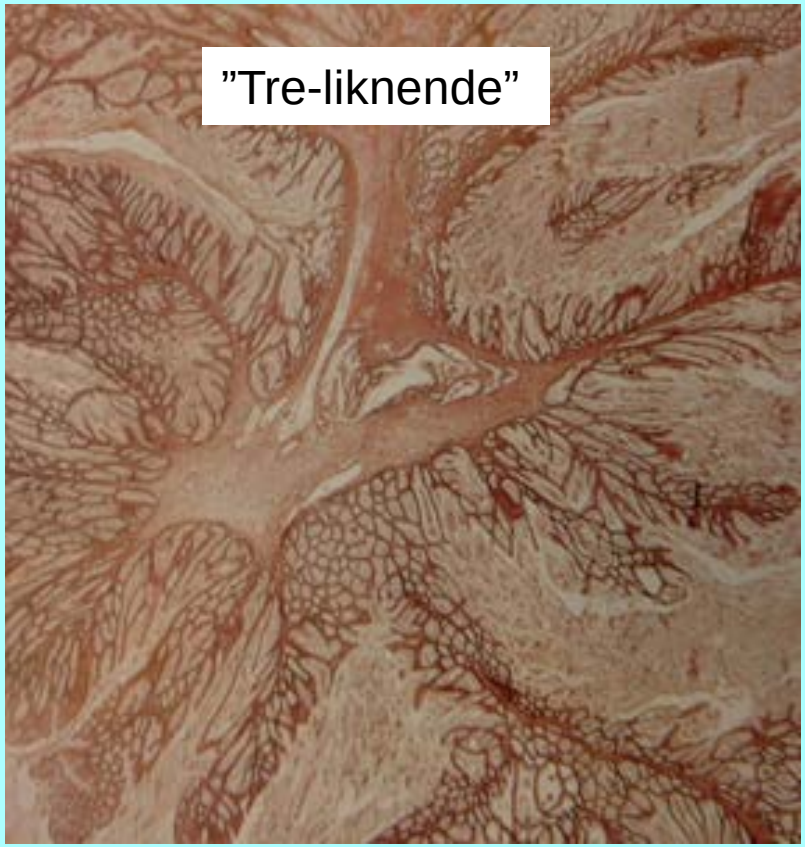
Figure 16-6

DIAGRAMMATIC REPRESENTATION OF THE NEOPLASMS ASSOCIATED WITH PEUTZ-JEGHERS SYNDROME

PEUTZ- JEGHERS SYNDROME







JUVENILE POLYPOSIS SYNDROME

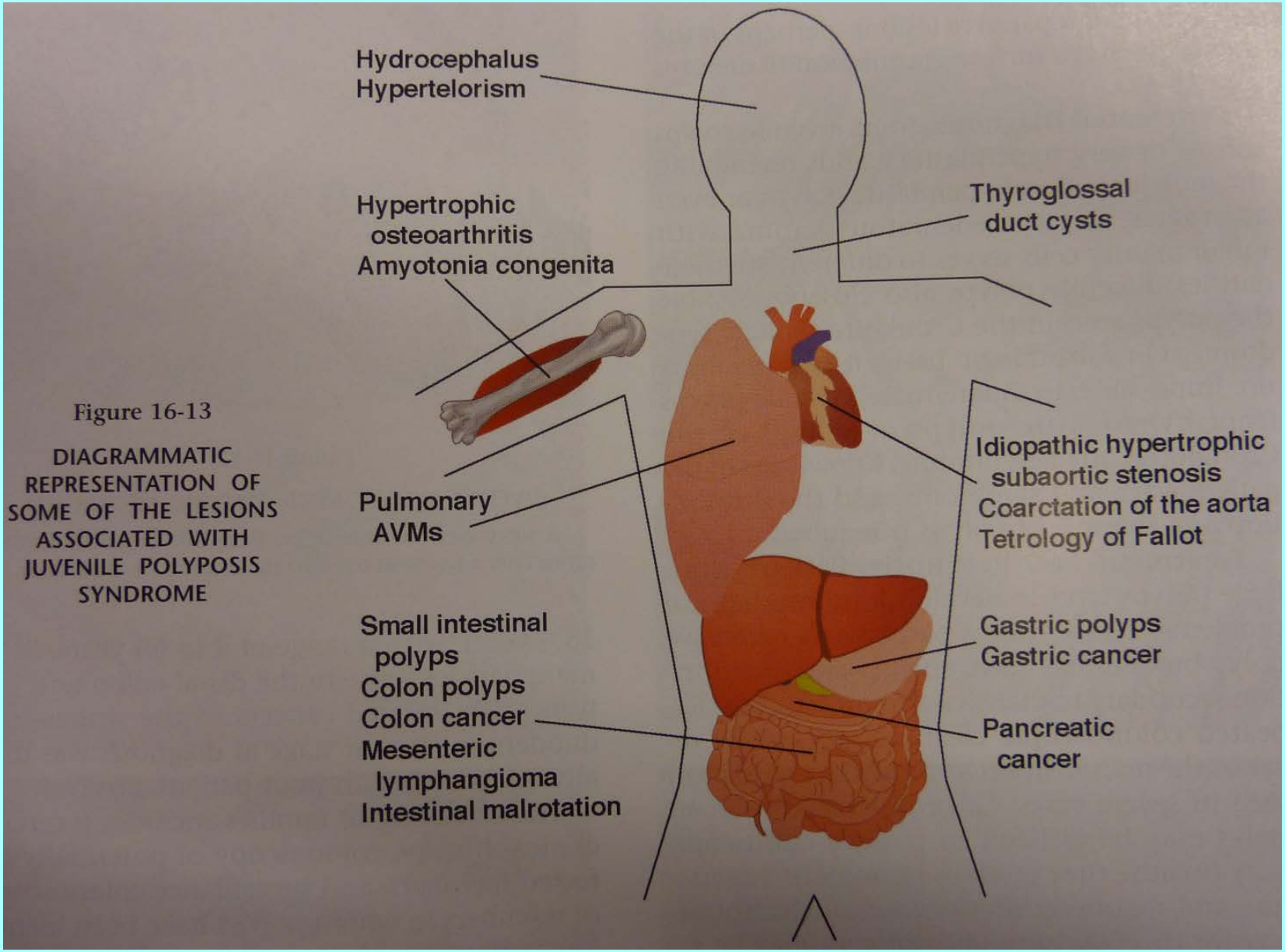


Figure 16-13

DIAGRAMMATIC REPRESENTATION OF SOME OF THE LESIONS ASSOCIATED WITH JUVENILE POLYPOSIS SYNDROME

Cowden`s syndrome
(Multiple hamartom syndrome)

- Autosomal dominant
- Hamartomer

COWDEN`S SYNDROME

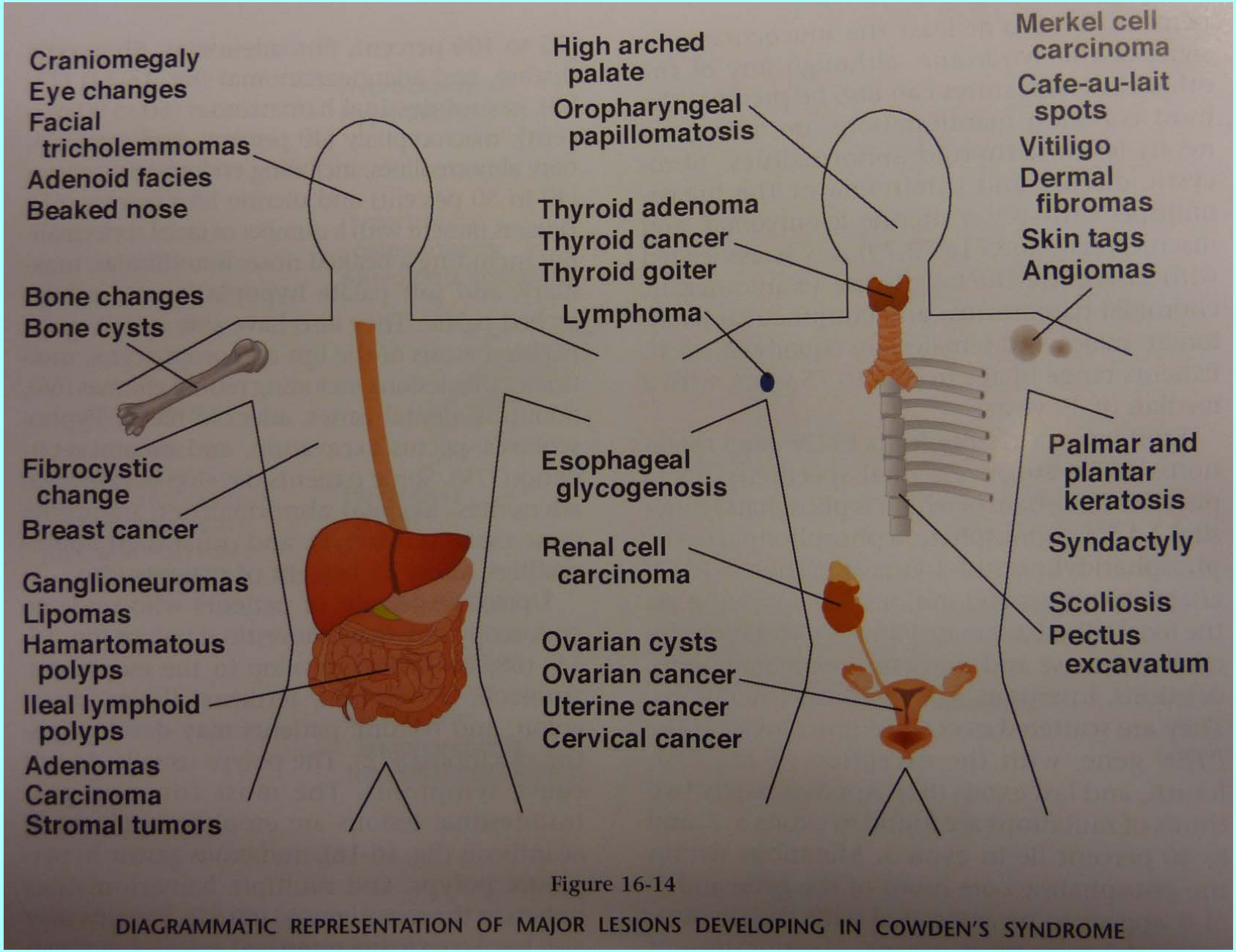
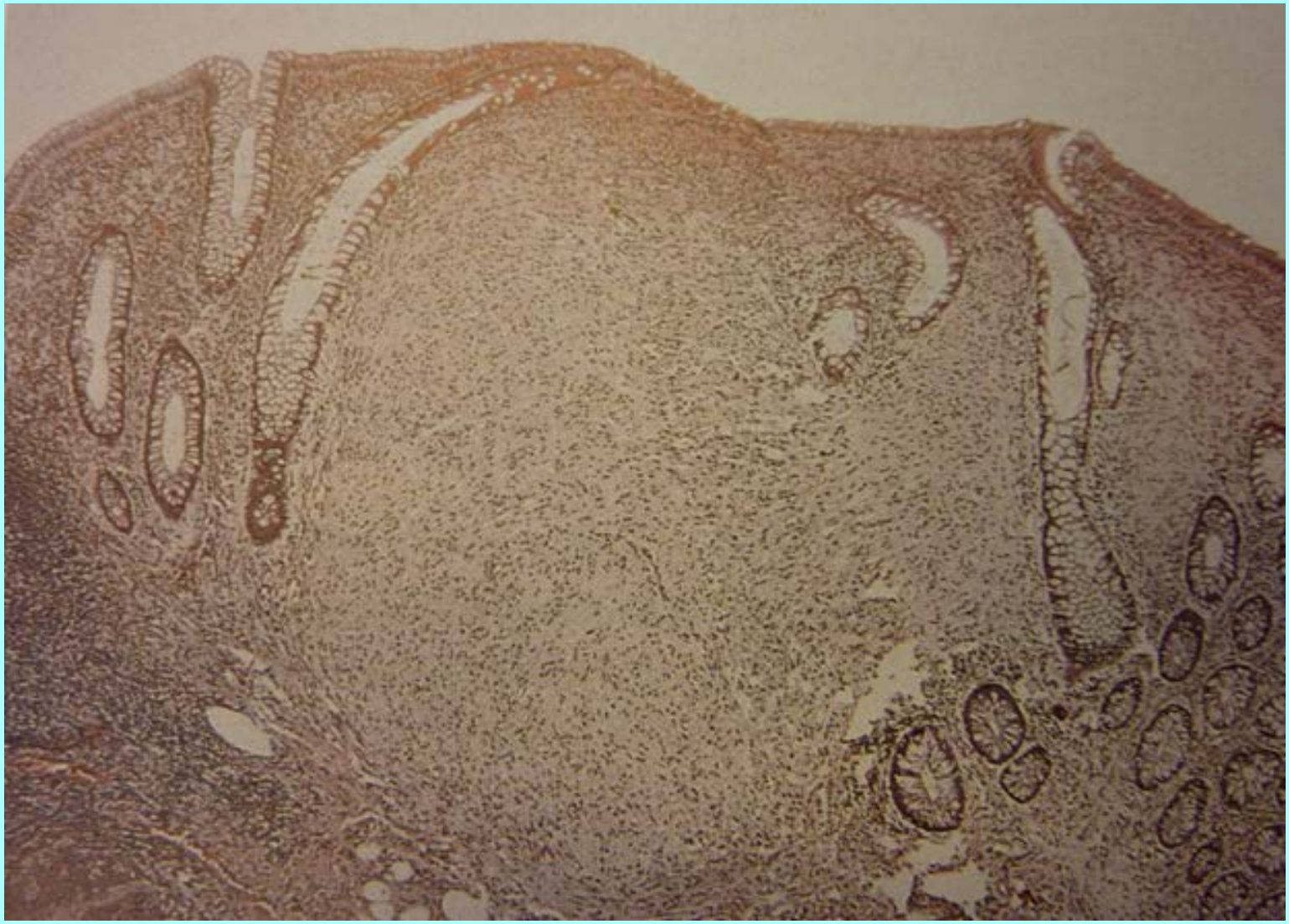


Figure 16-14

DIAGRAMMATIC REPRESENTATION OF MAJOR LESIONS DEVELOPING IN COWDEN'S SYNDROME

Cowden´s syndrome



CRONKHITE- CANADA SYNDROME

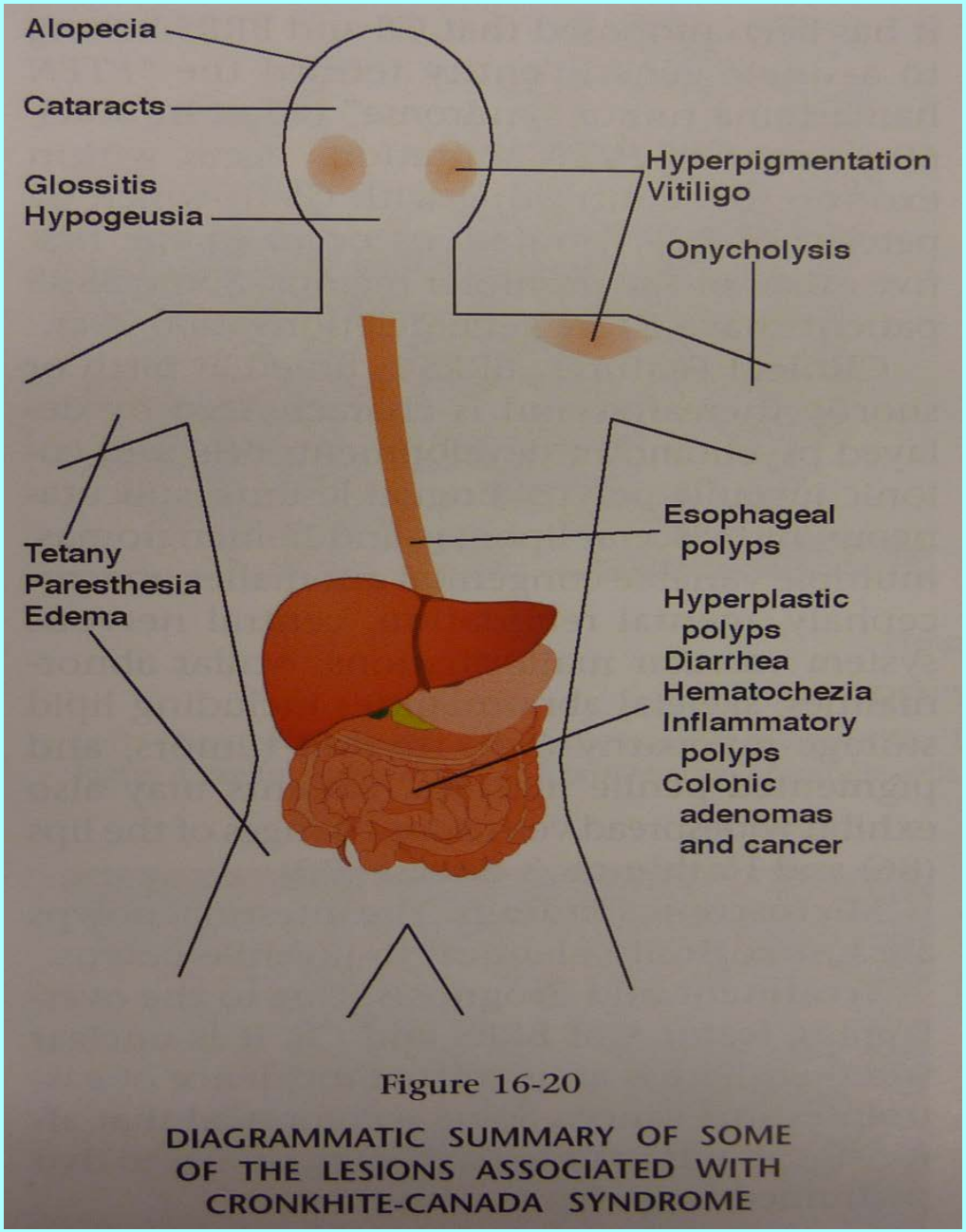
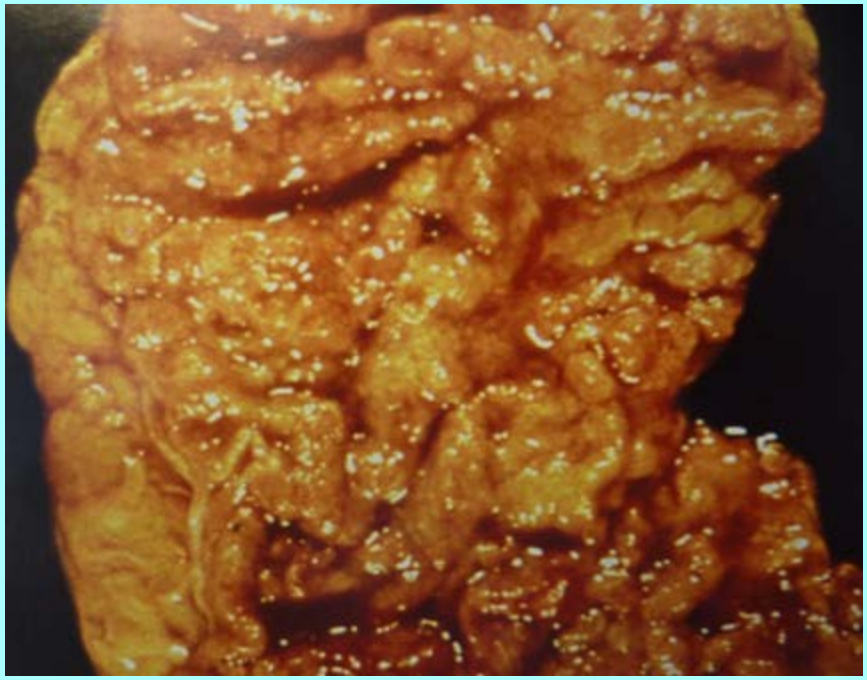
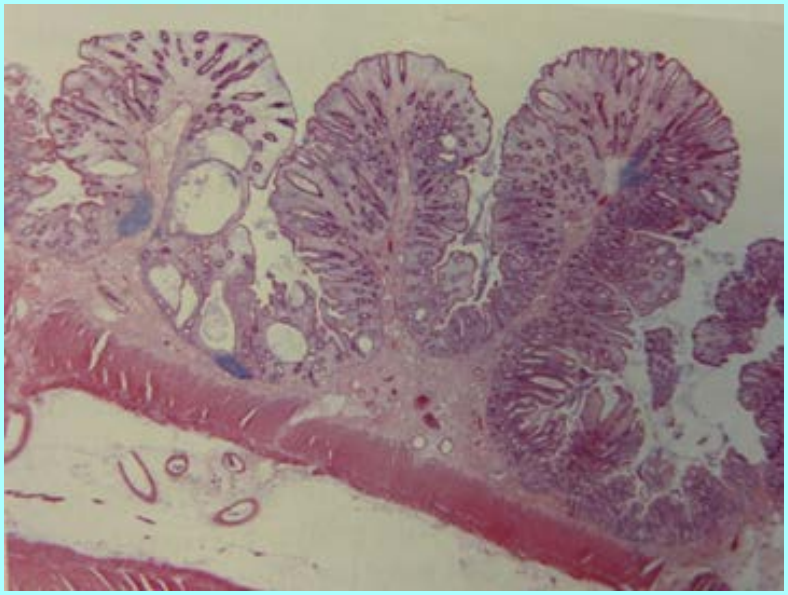


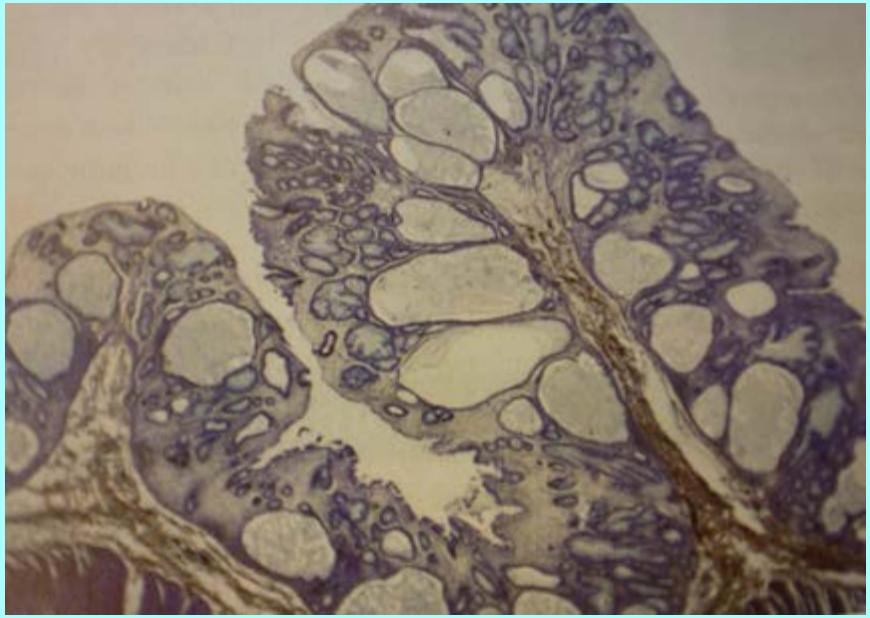
Figure 16-20

DIAGRAMMATIC SUMMARY OF SOME OF THE LESIONS ASSOCIATED WITH CRONKHITE-CANADA SYNDROME





Cronkhite-Canada syndrome



”GJØR DET SELV”

Table 1 Staging Systems for Colon and Rectal Cancer

TUMOR DESCRIPTION	DUKES	MAC*	AJCC/UICC TNM	STAGE
Confined to mucosa	—	—	Tis	0
Invasion into submucosa	—	A	T1, N0, M0	I
Into muscularis propria	A	B1	T2, N0, M0	I
Involvement of serosa	B	B2	T3, N0, M0	II
Invasion of adjacent structure	—	B3*	T4, N0, M0	II
Positive LN, partial wall invasion	—	C1	—	—
Positive LN, transmural invasion	C	C2	Any T, N1-3, M0	III
Positive LN, adjacent organ invasion	—	C3*	—	—
Distant metastasis	D†	D	Any T or N, M1	IV

AJCC, American Joint Committee on Cancer; *LN*, lymph node; *MAC*, Modified Astler-Coller; *N1*, one to three adjacent lymph nodes involved; *N2*, four nodes near bowel involved; *N3*, any nodal metastasis along named vascular trunk; *UICC*, Union Internationale Centre le Cancer.

*Gunderson-Sosin system has the additional modification of B3 and C3 stages.

†Stage D not part of original 1932 Dukes' system, added later.

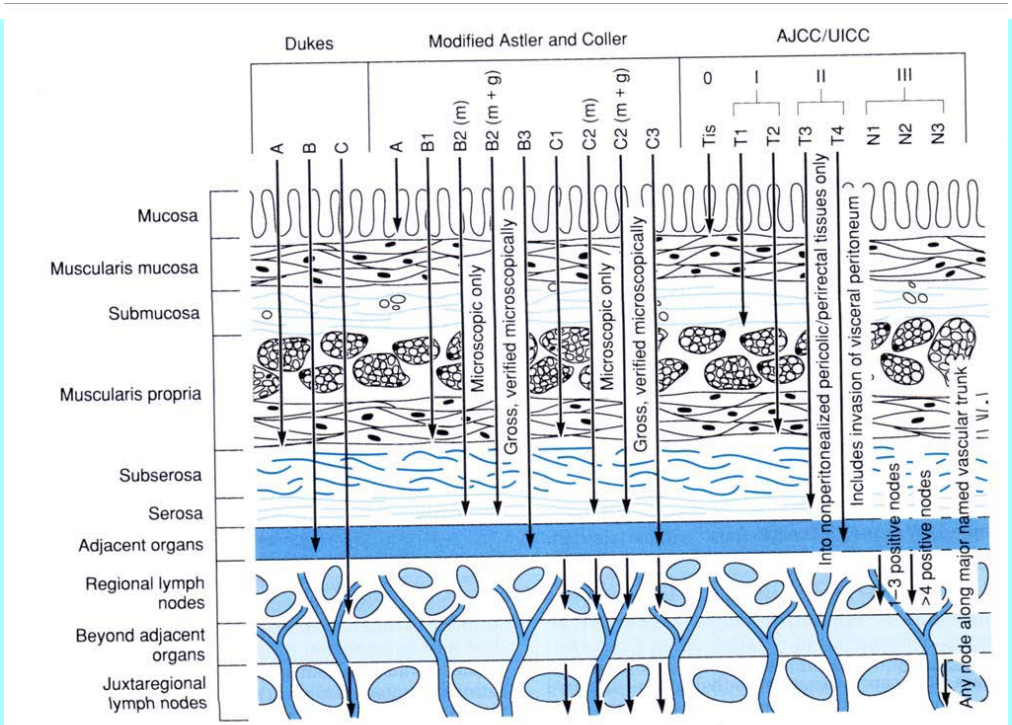


Figure 46.6. Schematic description of the staging systems with respect to depth of invasion.